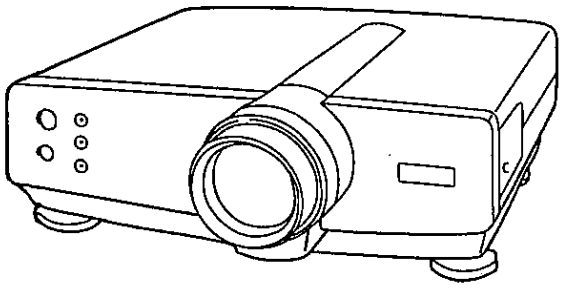
SHARP SERVICE MANUAL SERVICE-ANLEITUNG

S73Y3XG3800E/



SECAM/PAL/NTSC SYSTEM
LCD PROJECTOR
LCD PROJEKTOR

MODEL MODELL XG-3800E

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

Im Interesse der Benutzer-Sicherheit (in einigen Länder durch Sicherheitzvorschriften gefordert) sollte dieses Gerät wieder auf seinen ursprünglichen Zustand eingestellt und nur die vorgeschriebenen Teile verwendet werden.

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SHARP CORPORATION

SPECIFICATIONS

Product Type:	LCD projector
Model:	XG-3800E
System:	PAL/SECAM/NTSC/3.58/NTSC4.43 system
Display method:	3 LCD panels, 3-colour optical shutter methode
LCD panels:	☐ Panel size; 3.6" (H 5.5 cm × W 7.3 cm) ☐ Display method; Translucent TN crystal panels ☐ Drive method; TFT (Thin Film Transistor) active matrix drive methode ☐ No. of pixels; 308,880 pixels (H480 × W643.5) <Effective pixel ratio: 99.99% or greater>
Lens:	Zoom lens F = 3.9~5.2 f = 100 mm~160 mm
Projection lamp:	Metal halide
Contrast ratio:	100:1
Horizontal resolution:	More than 560 lines (NTSC)
Lamp:	Metal halide discharge lamp
Audio output:	3 W (monaural)
Speaker:	8 cm × 1
Rated voltage:	AC 200~240 V
Rated frequency:	50/60 Hz
Power consumption:	230 W
Operating temperature range:	5°C~40°C
Input/output terminals:	☐ RGB input terminal 2; Separate RGB analog/digital signal: 15-pin mini D-SUB terminal Audio: 142 mVrms, 1 kΩ or less: RCA jack ☐ RGB input terminal 1; Separate RGB analog signal: BNC jack Audio: 142 mVrms, 1 kΩ or less: RCA jack ☐ Video input terminal; Video: 1.0 Vp-p, 75 Ω, synchronous load: BNC jack Audio: 142 mVrms, 1 kΩ or less: RCA jack ☐ S-video input jack; Luminance signal: 1.0 Vp-p, 75 Ω, synchronous load: 4-pin mini DIN jack Chrominance signal: 0.286 Vp-p (burst signal), 75 Ω
Cabinet:	Plastic
Dimensions (W × D × H):	50.0 × 48.2 (including jack cover: 52.6) × 20.1 cm
Weight:	15.3 kg (including jack cover: 14.7 kg)
Supplied accessories:	☐ Remote control unit ..... 1 pc. ☐ Dry battery (type AA) ..... 4 pcs ☐ Lens cap ..... 1 pc. (installed) ☐ Dust cover ..... 1 pc. ☐ Inverted display plate ..... 4 pcs ☐ Inverted display label ..... 1 pc. ☐ Air Filter ..... 1 pc. (installed) ☐ Terminal cover ..... 1 pc. ☐ Installation screw ..... 2 pcs ☐ Owner's manual ..... 1 pc. ☐ VGA signal cable (1.5 m) ..... 1 pc. ☐ MAC cable (1.5 m) ..... 1 pc.

Specifications are subject to change without notice.

NOTE TO SERVICE PERSONNEL

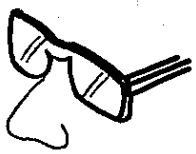
UV-RADIATION PRECAUTION

The light source, metal halide lamp, in the LCD projector emits small amounts of UV-Radiation.

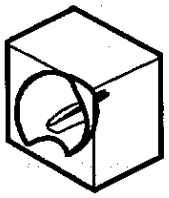
AVOID DIRECT EYE AND SKIN EXPOSURE.

To ensure safety please adhere to the following:

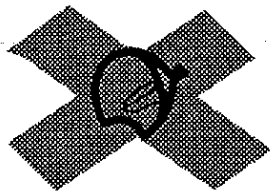
1. Be sure to wear sun-glasses when servicing the projector with the lamp turned "on" and the top enclosure removed.



2. Do not operate the lamp outside of the lamp housing.



3. Do not operate for more than 2 hours with the enclosure removed.

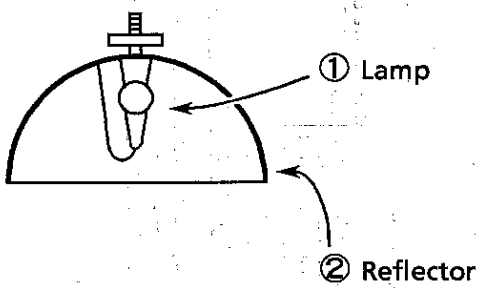


UV-Radiation and Medium Pressure Lamp Precautions

1. Be sure to disconnect the AC plug when replacing the lamp.
2. Allow one hour for the unit to cool down before servicing.
3. Replace only with same type lamp. Type **RLMPF0013CEZZ** rated 85 V/150 W.
4. The lamp emits small amounts of UV-Radiation, avoid direct-eye contact.
5. The medium pressure lamp involves a risk of explosion. Be sure to follow installation instructions described below and handle the lamp with care.

■ Lamp Replacement

Note:
Since the lamp reaches a very high temperature during units operation replacement of the lamp should be done at least one hour after the power has been turned off. (to allow the lamp to cool off.)
Installing the new lamp, make sure not to touch the lamp (bulb) replace the lamp by holding its reflector ②.
[Use original replacement only.]

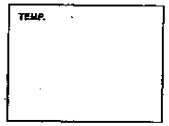


DANGER ! — Never turn the power on without the lamp to avoid electric-shock or damage of the devices since the stabilizer generates high voltages at its start.

Location of Controls

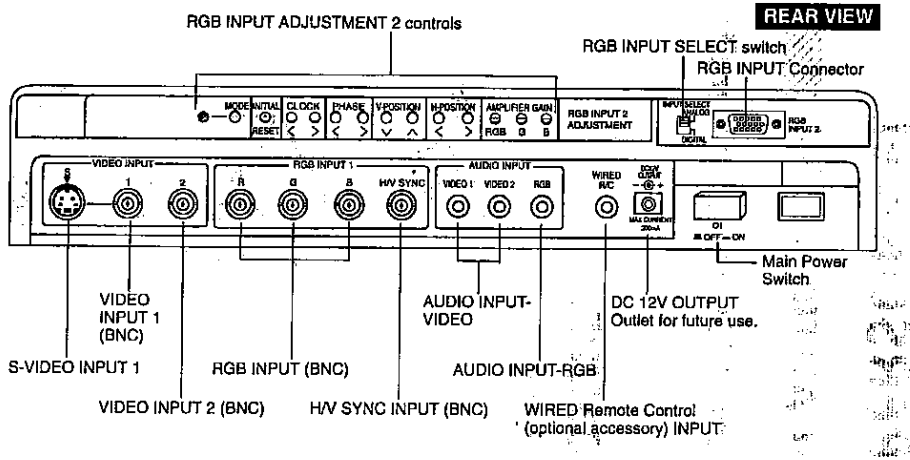
About the Temperature Monitor Function:

ON SCREEN DISPLAY

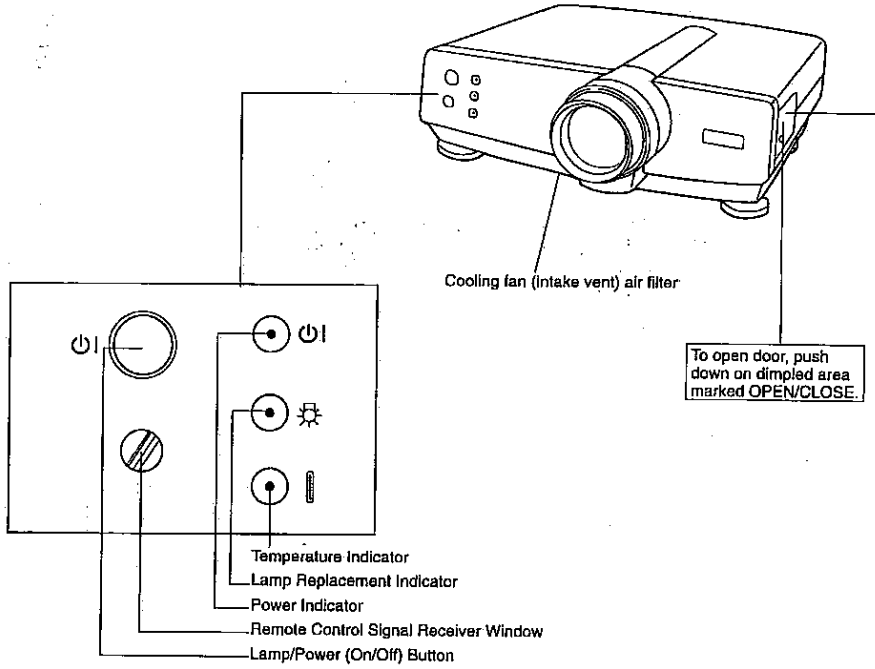


- If the projector starts to overheat due to set-up problems or a dirty filter, "TEMP" will flash in the upper-left portion of the picture. If the temperature continues to rise, then the Temperature Monitor Indicator will turn on and the Power will shut off. Refer to "Warning Lamps", when the warning appears in the picture.
- The Cooling Fan regulates the internal temperature, and its performance is automatically controlled. The sound of the fan may change during operation due to changes in the fan speed.

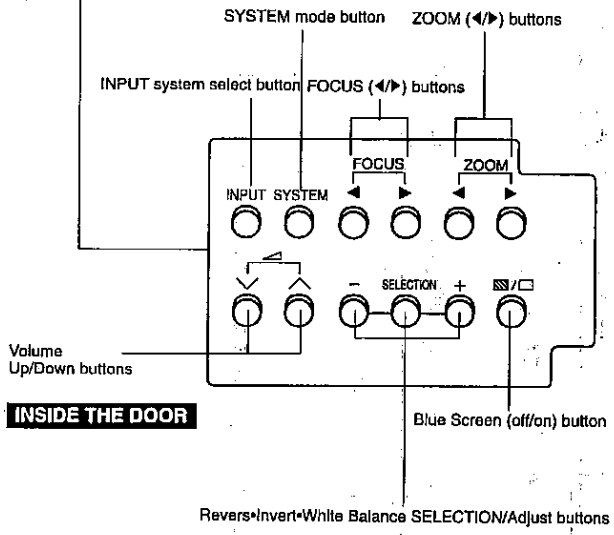
REAR VIEW



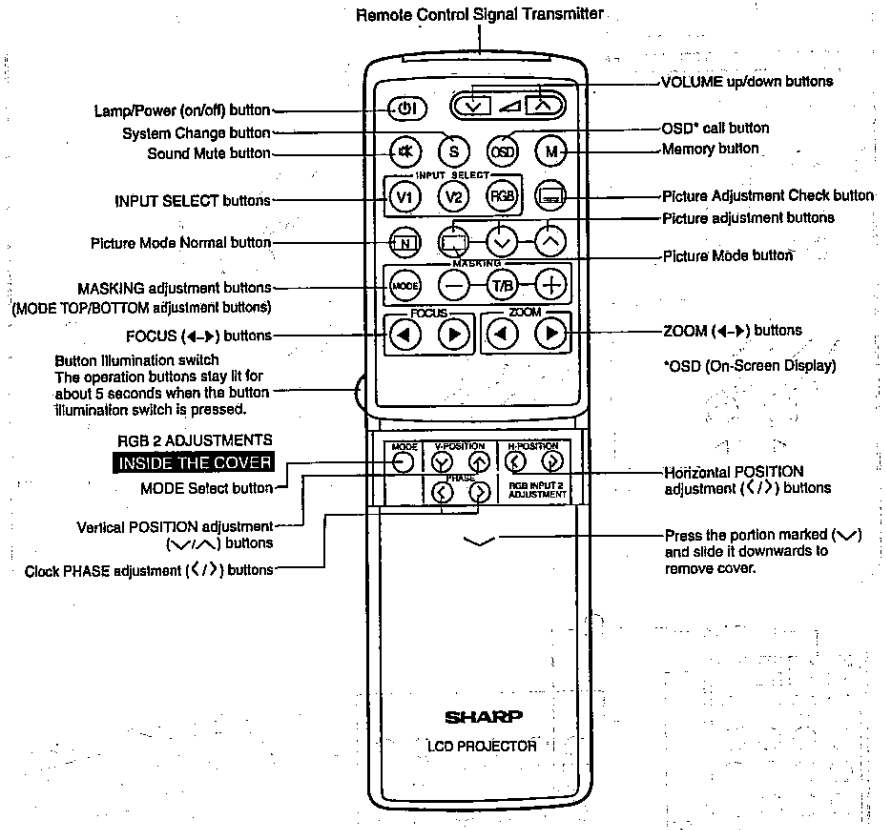
FRONT VIEW


Cooling fan (intake vent) air filter
To open door, push down on dimpled area marked OPEN/CLOSE.
Temperature Indicator
Lamp Replacement Indicator
Power Indicator
Remote Control Signal Receiver Window
Lamp/Power (On/Off) Button

INSIDE THE DOOR



REMOTE CONTROL

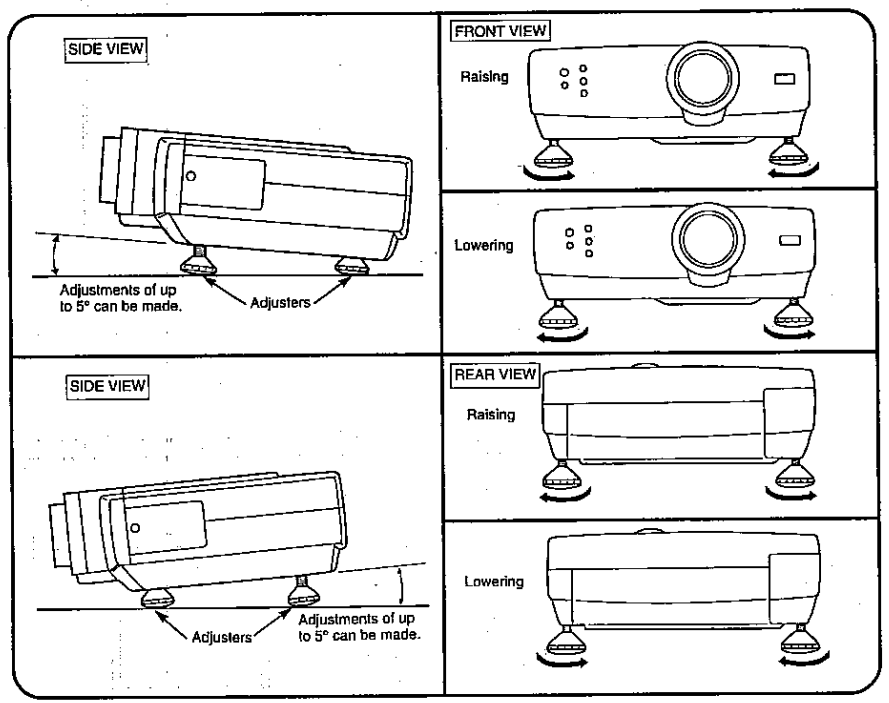


Remote control handling precautions
Do not expose the remote control to shocks, liquids or high humidity.
The remote control may not operate normally if exposed to direct sunlight or other intense light sources. Should this happen, reposition the light source or the LCD Projector.

Setting Up the Projector

Using the Level and Height Adjusters

• Use the adjusters on the bottom of the projector to adjust the vertical angle of the projector.



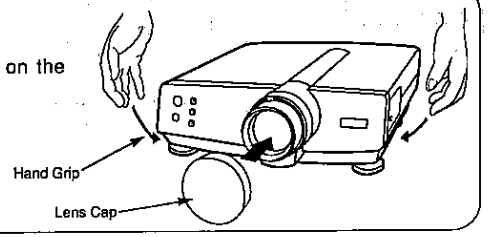
Note:

1. When adjustments are made with the adjusters, the picture may become distorted, depending on the relative positions of the projector and the screen.
2. After adjusting, in some cases all of the adjuster feet may not be resting on the mounting surface. To prevent the projector from wobbling, adjust all four adjuster feet so that they firmly contact the mounting surface.

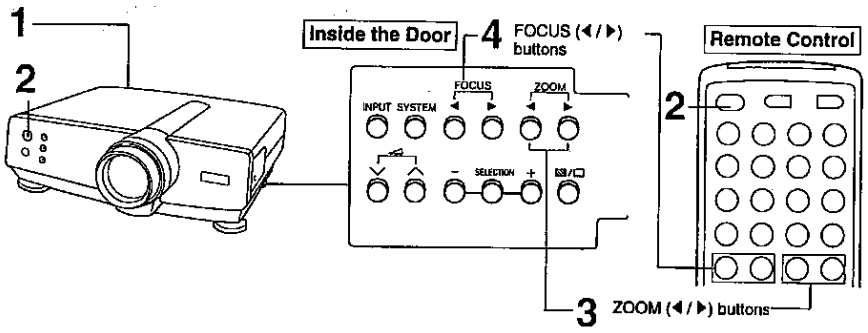
Moving the Projector

Hold with both hands.

Note:
When moving the projector, always put on the lens cap to prevent damage to the lens.



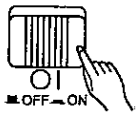
Using the Zoom and Focus



1 Turn on the power.

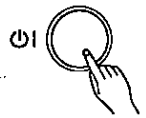
Projector (Rear View)

Set the Main Power Switch to on



2 Turn on the lamp power

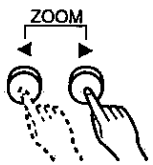
Projector (Front View)



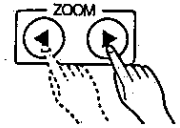
Remote Control

3 Use the ZOOM (◀/▶) buttons to adjust the picture size.

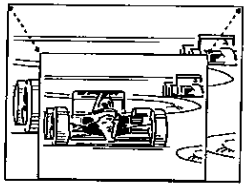
Projector



Remote Control

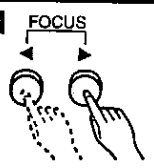


- The picture can be adjusted to the desired size within the range of the zoom lens.

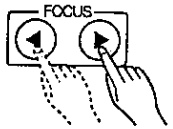


4 Set the focus using the FOCUS buttons.

Projector

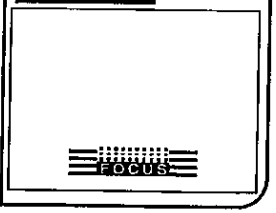


Remote Control



- Adjust the focus until the picture on the screen is sharp.
- The focus pattern appears on the screen.

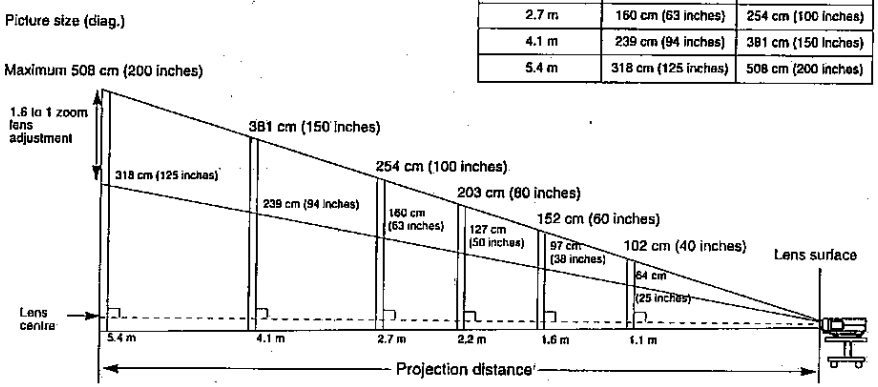
On-Screen Display



- The motorized zoom lens allows adjustment to the image size within the projector's range.
- The picture can be focused from a minimum of 1.1 m to a maximum of 8.8 m from the screen. Please set up the projector within this range.

Projector distance and picture size relationship

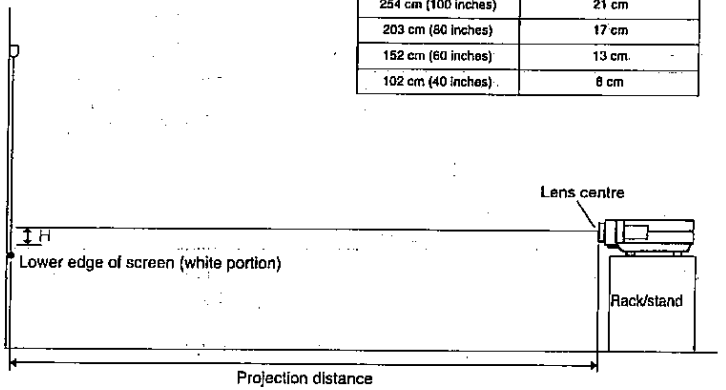
Projection distance	Minimum picture size	Maximum picture size
1.1 m	64 cm (25 inches)	102 cm (40 inches)
1.6 m	97 cm (38 inches)	152 cm (60 inches)
2.2 m	127 cm (50 inches)	203 cm (80 inches)
2.7 m	160 cm (63 inches)	254 cm (100 inches)
4.1 m	239 cm (94 inches)	381 cm (150 inches)
5.4 m	318 cm (125 inches)	508 cm (200 inches)



Above is an illustration of minimum projection distance for the XG-3800E.
Move the projector forward or back if the edges of the image are distorted.

Height of projector

Maximum picture size (diag.)	Distance from lens centre to lower edge of screen (H)
508 cm (200 inches)	43 cm
381 cm (150 inches)	33 cm
254 cm (100 inches)	21 cm
203 cm (80 inches)	17 cm
152 cm (60 inches)	13 cm
102 cm (40 inches)	8 cm



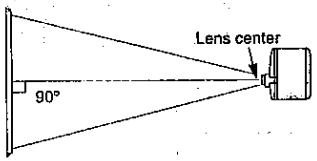
How to set up the projector and screen

Caution: When you set up the projector
- Do not place it in humid or dusty places, or places where the air is sooty or full of cigarette smoke. If the lens, mirror, or other optical components become dirty, the picture will blur or darken, making viewing difficult.
- Do not expose to extreme heat or cold.
  Operating temperature: 5°C – 40°C
  Storage temperature: -20°C – 60°C

Example of a standard setup

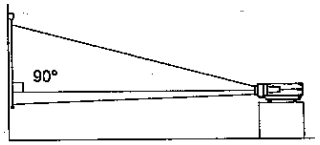
- Position the screen so that it is not in direct sunlight or room light. Light falling directly onto the screen washes out colours, making viewing difficult. Close the curtains and dim the lights when using the screen in a bright or sunny room.
- The best picture will be obtained when the projector is at a 90 degree angle to the screen. Position the projector and screen as shown.

TOP VIEW



The projector should be centered in the middle of the screen.

SIDE VIEW



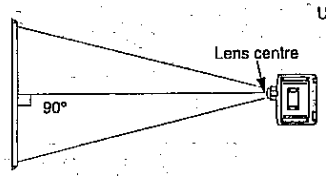
Bottom of the projector lens should be slightly above the bottom of the screen.

If the projector and screen settings are incorrect, the picture will be distorted, making viewing difficult.

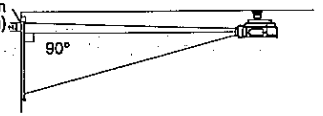
Example of a ceiling mount setup

- The projector provides the best picture when it is set up perpendicular to the screen. Set up as shown below.
- Before mounting the projector, be sure to contact your local Authorized Sharp Industrial LCD Products Dealer to obtain the manufacturer-recommended ceiling installation unit and installation adaptor, sold separately. (AN-E1TKE Ceiling Mount Bracket, AN-TK201/AN-TK202 Extension Tube for AN-E1TKE)

TOP VIEW



SIDE VIEW



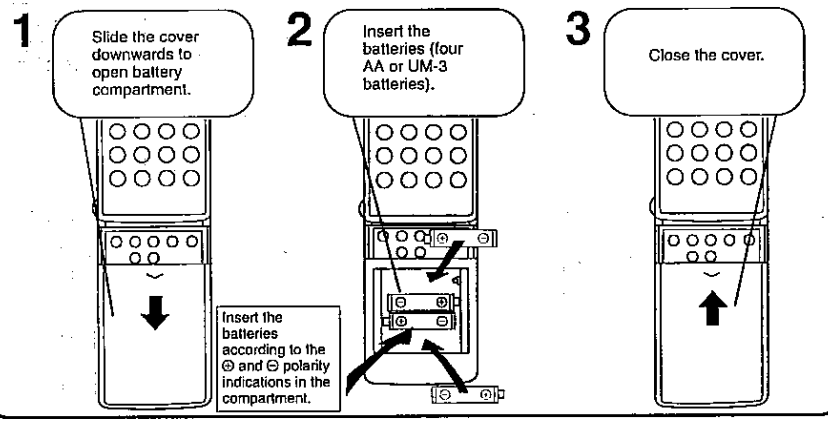
- If the relative positions of the projector and the screen are not properly adjusted, the picture will be distorted, making viewing difficult.

Note: Contact your Authorized Sharp Industrial LCD Products Dealer for inquiries concerning setup.

Remote Control Handling

Battery Compartment

- The batteries are supplied and packed with this operation manual.

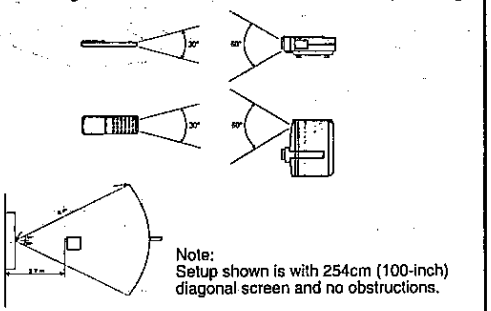

1
Slide the cover downwards to open battery compartment.
2
Insert the batteries (four AA or UM-3 batteries).
3
Close the cover.
Insert the batteries according to the ⊕ and ⊖ polarity indications in the compartment.

NOTES ON BATTERIES

Incorrect use of batteries may cause them to leak or burst.
- Insert the batteries observing their polarities (⊕ and ⊖) as indicated.
- Remove the batteries if the remote control will not be operated for an extended period of time (for more than 1 month).
- Maintain the batteries in clean condition.
- Do not mix battery brands in use.
- Do not mix old and new batteries. The life expectancy of the new batteries will be shortened and the old batteries may leak.
- When batteries have been used up, remove them to prevent leakage. Leaked battery fluid may irritate the skin.
- Due to storage conditions and the shelf life of the supplied batteries, they may run out in a short time. Replace them with new batteries as soon as possible.

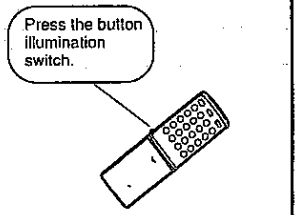
Remote control operation

- Use the remote control as shown in the figures below.



- Remote control effective distance (overhead view)

Using the remote control in a dark room

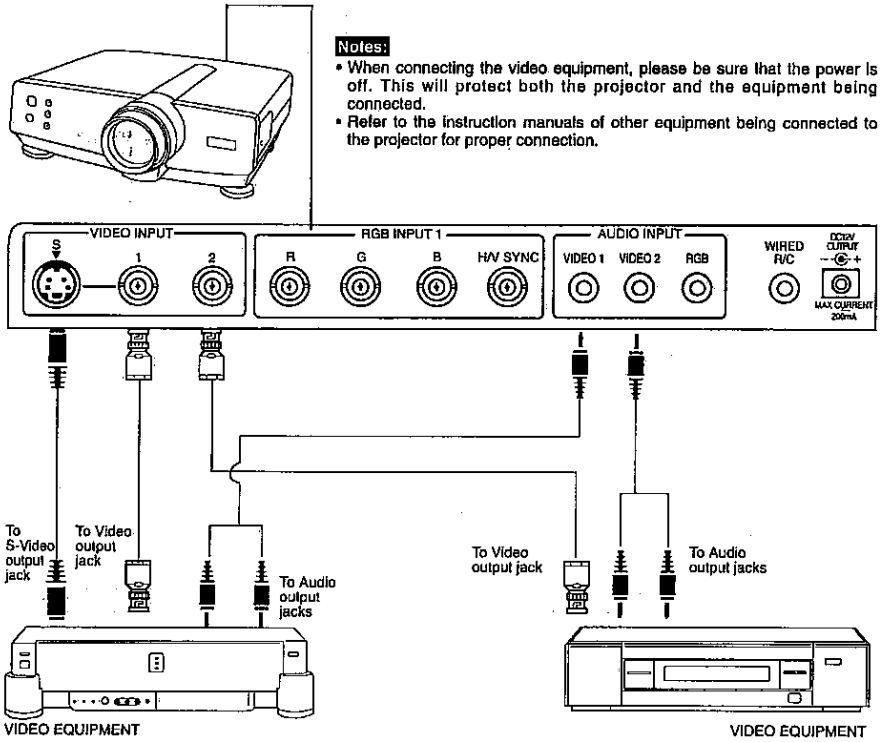


- This will cause the operation buttons to stay lit for about 5 seconds.

Connecting the Projector

SYSTEM 1

To connect the projector to video equipment for viewing played-back images.

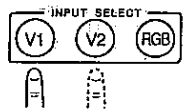


Notes:

- When connecting the video equipment, please be sure that the power is off. This will protect both the projector and the equipment being connected.
- Refer to the instruction manuals of other equipment being connected to the projector for proper connection.

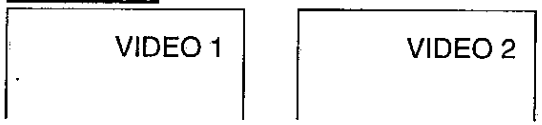
Use the INPUT SELECT button to select either VIDEO 1 or VIDEO 2.

•Remote Control



These controls are also available on the main unit.

On Screen Display



S-Video Terminal Priority Input Function

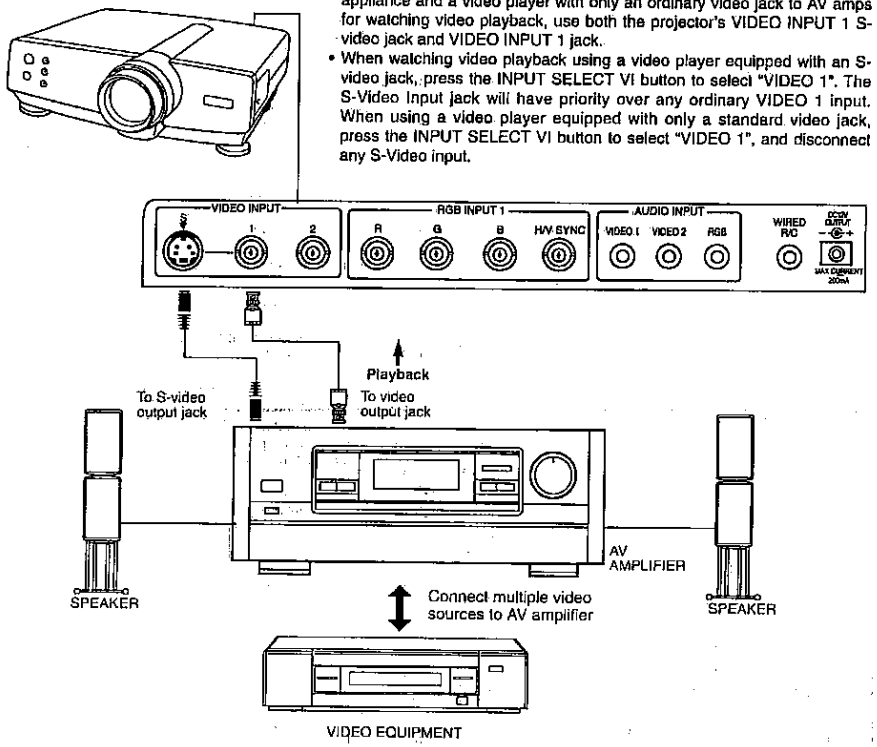
The Video Input 1 and S-video input terminals on this projector are set up to give priority to input from the S-video terminal.

- When video equipment is connected to both terminals, the video image from the S-video input terminal is shown on the screen.
- To view input form video equipment connected to the Video Input 1 terminal, disconnect the plug from the S-video terminal.

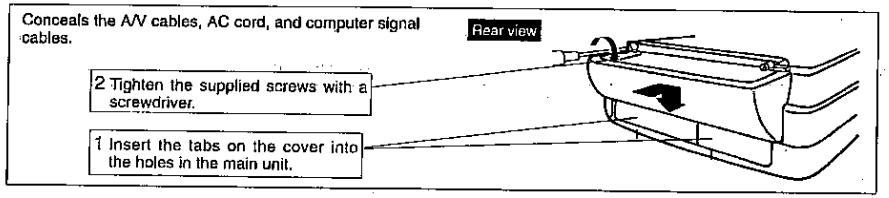
SYSTEM 2

To connect the projector to video and audio equipment for viewing played-back images. (With an audio amplifier connection.)

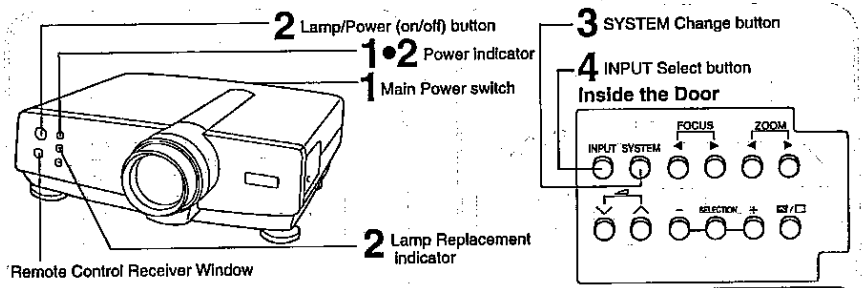
- To connect both an S-VHS video player or other S-video jack-equipped appliance and a video player with only an ordinary video jack to AV amps for watching video playback, use both the projector's VIDEO INPUT 1 S-video jack and VIDEO INPUT 1 jack.
- When watching video playback using a video player equipped with an S-video jack, press the INPUT SELECT VI button to select "VIDEO 1". The S-Video input jack will have priority over any ordinary VIDEO 1 input. When using a video player equipped with only a standard video jack, press the INPUT SELECT VI button to select "VIDEO 1", and disconnect any S-Video input.

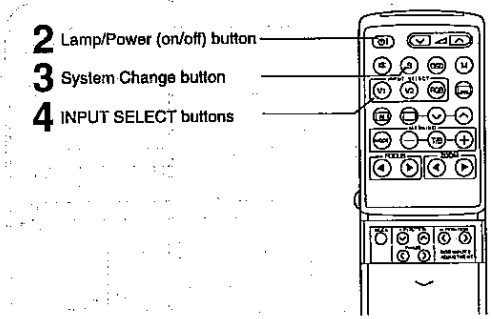


Installing the Terminal Cover (Supplied):


Conceals the A/V cables, AC cord, and computer signal cables.
Rear view
2 Tighten the supplied screws with a screwdriver.
1 Insert the tabs on the cover into the holes in the main unit.

Basic Operation of the Projector

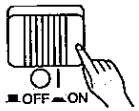




1 Turning on the main power switch

Projector

Press the Main Power switch.



- When you are using the projector for the first time or when the power indicator lamp is off, set the main power switch to ON. (Indicator lights red.)
- The power indicator lamp turns off when the main power switch is set to off.

Indicator off:
Main Power switch is set to off

Indicator lights red:
Standby status

Indicator lights green:
Projector lamp on

2 Turning on the lamp power

Push the Lamp Power button.

Projector

Remote Control

When the power is turned on, the red power indicator changes to green.
When the power is turned off, the green power indicator changes to red.

The indicator turns green.

Green: Lamp on

Flashing green light: Lamp is being warmed up

Indicator lights red: Lamp should be replaced

See "Warning Lamps" for details.

3 System change

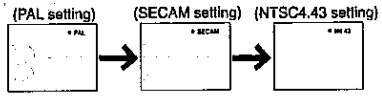
Press SYSTEM change button.

Projector
SYSTEM

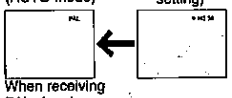
Remote Control
S

- When the button is pressed, the selected colour system is displayed in the top right corner of the screen for a few seconds.

(PAL setting) (SECAM setting) (NTSC4.43 setting)



(AUTO mode) (NTSC3.58 setting)



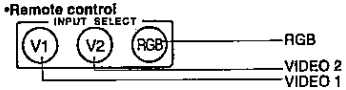
When receiving PAL signal.

* In Auto mode, "PAL", "SECAM", "NTSC4.43" or "NTSC3.58" is displayed on the screen for a few seconds when the mode is automatically changed.

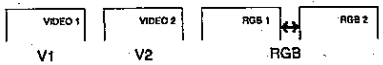
4 INPUT Select

The INPUT SELECT buttons on the remote control allow you to switch the program source.

•Remote control



The screen display changes as shown below when each indicated button is pressed.



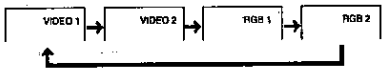
- **INPUT SELECT button on the projector operation panel**

INPUT

The indication cycles as shown below when the button is pressed.

VIDEO 1 → VIDEO 2 → RGB 1 → RGB 2

The screen display changes as shown in these figures.



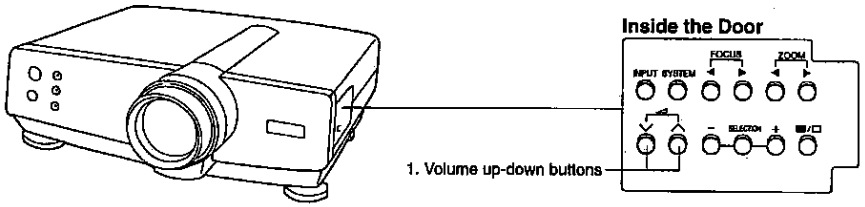
Note: The S-VIDEO INPUT 1 connector input has priority over other video input signals.

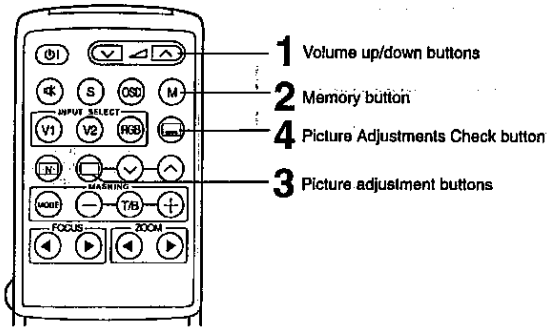
Note

- When the Power indicator is not lit, the remote control cannot be used to operate the projector.
- If the power is turned on immediately after it has been turned off, it may take a short while before the lamp turns on. (During this period the Lamp Replacement indicator flashes.)

Picture and Volume Control

- This projector's picture is set to standard specifications at the factory. However, you can adjust it to suit your own preferences using the Picture adjustment buttons.
- The new picture settings are committed to memory when set.



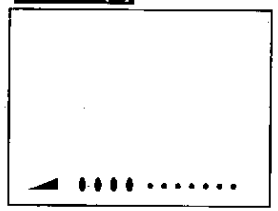


1 Adjusting the Volume

Press the Volume buttons.

Projector | Remote Control

On Screen Display



The number of segments (0-16) displayed increase or decrease as the volume is raised or lowered.

Memo: The sound can be temporarily turned off using the SOUND MUTE button.

(Remote control)

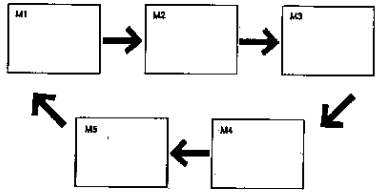
2 Selecting the MEMORY

Press the Memory button.

Remote Control

- Press the Memory button to select the desired customer pre-selected picture settings. Each of the five memory positions can be adjusted to your own preferred settings.
- When the Memory button is pressed while the settings are shown on the screen, the display will change as follows.

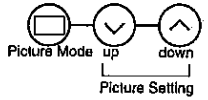
On Screen Display



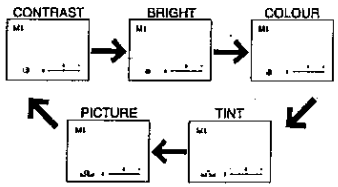
3 Adjusting the Picture

Press the Picture adjustment buttons

Remote Control



The picture adjust mode changes as shown below when the Picture mode button is pressed.
(M1 shows a memory number.)



- Select the mode that is to be adjusted and then use the Picture setting buttons to make the adjustments.
  - The modes are displayed on the screen for only a few seconds. The adjustments have to be made while the adjustment screen is displayed.

The tint setting can be adjusted only when receiving an NTSC signal.

Note: • When RGB signal input has been selected, only CONTRAST and BRIGHT can be adjusted.

Note: Picture adjustments can be returned to standard (factory) settings by pressing the Picture Mode Normal button.

(Remote Control)

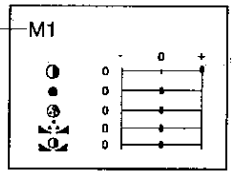
4 Checking picture adjustments

Press the Picture Adjustment Check button

Remote Control

Use the Picture Adjustment check button on the remote control to check the settings registered in memory.

Displays most recently programmed adjustments.



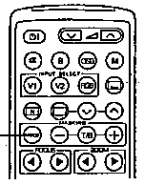
- The picture can be adjusted by pressing the Picture Mode button to select the appropriate item, then adjusting using the Picture Setting buttons.

Note: The mode being adjusted is displayed in yellow.

Masking Adjustment

■ The Masking function can be used to enjoy wide-screen pictures — which have dark bands blacking out the top and bottom portions of the screen.
This projector offers you a choice of three modes: "Normal Mode", "Vista Mode", and "Cinema Scope/Letterbox Mode".

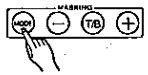
Remote Control



How to Select the Masking Mode

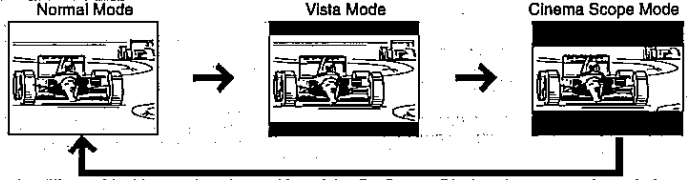
Press the MASKING MODE select button. Select input.

Remote Control



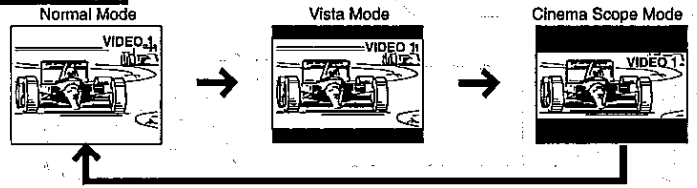
- The mode will change each time you press the MASKING MODE button, as shown below.
- Vista Mode is indicated by a yellow ▲. Cinema Scope Mode is indicated by a blue ▲.

On-Screen Display



- For the different Masking modes, the position of the On-Screen Display changes as shown below...

On-Screen Display



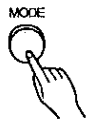
Note:

- When RGB signal input has been selected, the Masking mode cannot be adjusted.
- When using this LCD projector for business or mass-viewing purposes, please be aware that use of this image masking function may infringe on the legally protected copyrights of the producer of the video software.
- Video software recorded in one mode cannot be converted and viewed in another mode. The image will only be masked off; not converted.

How to Adjust Masking

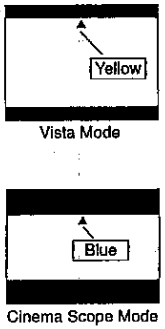
1 Use the MASKING MODE select button to choose the mode you want to adjust.

Remote control

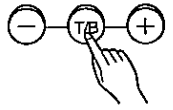


- A ▲ mark will appear for 4 seconds to indicate the mode.

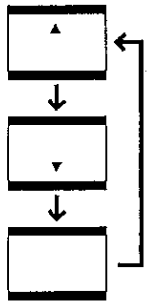
On-Screen Display



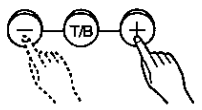
2 Press the Top/Bottom select button



- If you press the Top/Bottom select button while the mode you want to adjust is being displayed, the portion that can be adjusted is indicated by a green ▲ or ▼ mark.
- Each time you press the button, the screen will change as shown below.
- The ▲ or ▼ mark is displayed for 4 seconds.

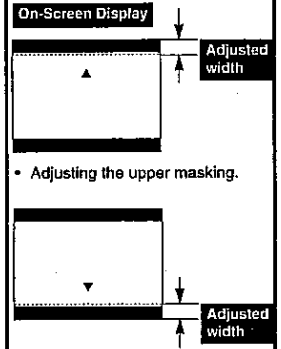


3 Adjust using the MASKING adjustment (+/–) buttons



- Pressing the MASKING adjustment ⊕ or ⊖ button while the ▲ or ▼ mark appears on the screen causes the band to become thicker or thinner.

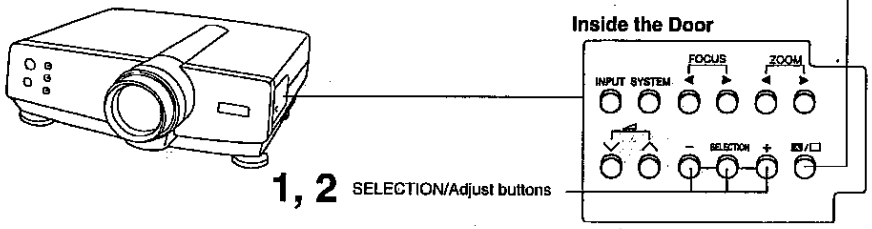
On-Screen Display

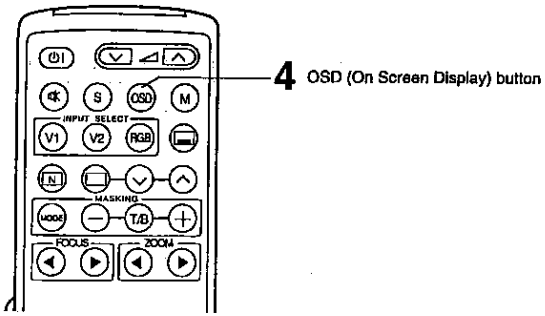


- Adjusting the upper masking.
- Adjusting the lower masking.

NOTE: The final masking adjustment mode is saved as the screen setting.

Other Functions





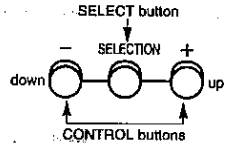
1 Invert/Reverse the image

■ This projector is equipped with an Auto Invert feature that automatically inverts the image when the projector is turned upside down; useful when it is mounted on the ceiling or in an elevated location.
The picture can also be inverted manually by pressing the SELECTION button on the operating panel to choose inverted display.

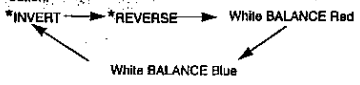
■ This projector is also equipped with a Reverse feature, which allows you to manually reverse the image left-right (project a mirror image).
(Use this feature for a rear-projection, translucent screen, or when projecting via a mirror.)

Press the SELECTION button.

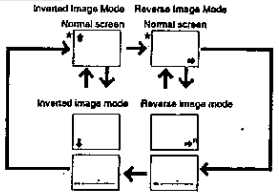
Projector



• Select Inved or Reverse mode by pressing the SELECTION button.



On Screen Display



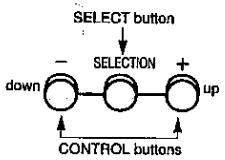
• Select inverted or reversed display by pressing the Control (+) or (–) buttons.
Press the Control button once again to return to the original display mode.

2 White Balance adjustment

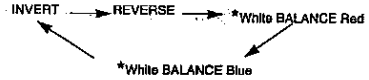
■ The red and blue components of the white balance can be adjusted to match the background when several projectors are used in a row for multi-picture projection, etc.

Press the SELECTION button.

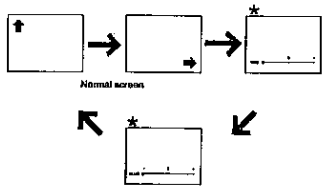
Projector



• Select the Red or Blue adjustment mode by pressing the SELECTION button.



On Screen Display



• Adjust by pressing the Control buttons (–: down, +: up).

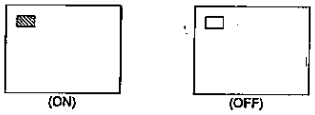
3 Blue screen function

■ This projector is equipped with a Blue Screen function that will turn the screen blue when no signal is being received.

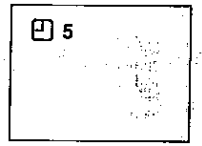
Press the SELECTION button.

Projector

On Screen Display



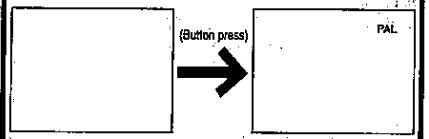
• When the Blue Screen button is set to the ▨ (ON) position, the screen turns blue when noise or no signal is input. (If the Blue Screen function is engaged for over 15 minutes, the Auto Off function engages and power is automatically turned off. Five minutes before the power turns off, the remaining time [in minutes] is displayed at one-minute intervals in the top left of the screen.)



4 On screen display call

■ The projector can determine the system of the signal presently being received.

The following screen is displayed when the OSD button on the remote control is pressed.

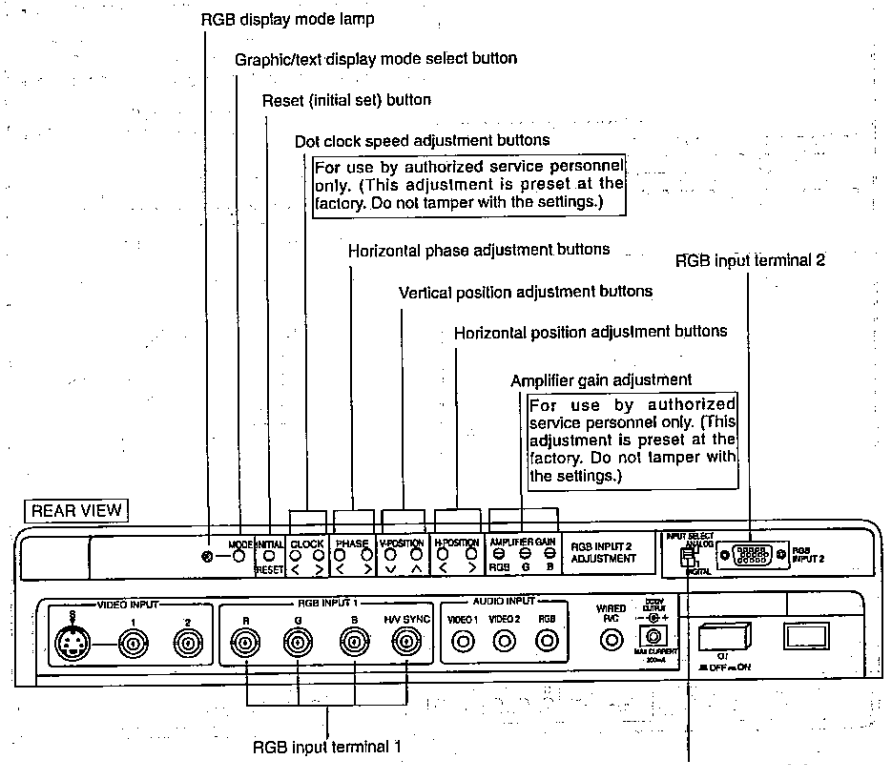


*When receiving PAL signal.

*Note: Mirrors and translucent screens for projection can be purchased separately to meet your specific needs.

Using the RGB Input Jacks

Parts Names and Their Uses


RGB display mode lamp
Graphic/text display mode select button
Reset (initial set) button
Dot clock speed adjustment buttons
For use by authorized service personnel only. (This adjustment is preset at the factory. Do not tamper with the settings.)
Horizontal phase adjustment buttons
Vertical position adjustment buttons
Horizontal position adjustment buttons
Amplifier gain adjustment
For use by authorized service personnel only. (This adjustment is preset at the factory. Do not tamper with the settings.)
RGB input terminal 2
REAR VIEW
RGB input terminal 1

***Adjustment functions**

H-POS (Horizontal position adjustment)
- If on-screen images are too far to left or right, they can be moved to the center with those buttons.

V-POS (Vertical position adjustment)
- If on-screen images are too high or low, they can be moved to the center with these buttons.

PHASE (Clock phase adjustment)
- When displaying text, these buttons can be used to reduce distortion or improve contrast.

CLOCK (Clock speed adjustment)
- For use by authorized service personnel only. Not to be adjusted by user. (This adjustment is preset at the factory.)

AMPLIFIER GAIN (Amplifier gain adjustment)
- Factory preset. In general, for use by authorized service personnel only, and not be adjusted by the user.
  However, when R&G signal levels from the connected computer are outside the recommended values, color gradations cannot be reproduced accurately and distortion and noise may appear on the screen.

MODE•INITIAL RESET

Analog/Digital select switch
When connecting to a computer with digital signal output, be sure to set the switch to Digital before connecting the signal cable.
(Switch is set to Analog at the factory.)

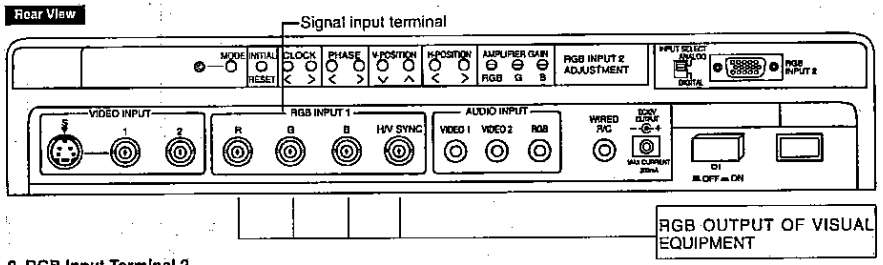
Note: Do not set the switch to Analog when the projector is connected to a computer with digital signal output.

1 Connecting the LCD Projector to a Computer

Note: •There are many display modes, depending on the model of computer, some of which are not compatible with this projector. Therefore, be sure to confirm compatibility of terminal shape, signal level, polarity, time chart, etc.

1. RGB Input Terminal 1

•Before connecting, be sure to turn off the power on both the projector and the RGB output source equipment.

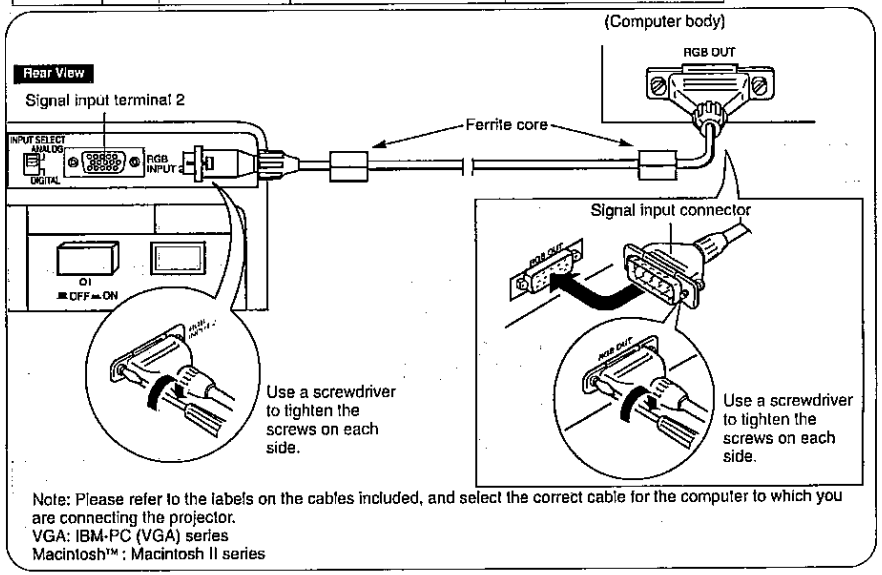


2. RGB Input Terminal 2

- Before connecting, be sure to turn off the power on both the projector and the computer. Also, when connecting to a computer with a digital signal output, be sure to set the Analog/Digital select switch to Digital.
- Insert the connectors on the connector cable (Sold Separately) into the signal input terminal on the projector and the RGB signal output terminal on the computer, and firmly tighten the screws on each side.

Other Signal Connecting Cables (Sold Separately)

Model Name	Connecting Computer	Signal Output Jack (computer side)	Signal Input Jack (XG-3800E side)
AN-C10BME	IBM-PC (VGA) series	15-pin mini D-SUB connector	15-pin mini D-SUB connector
AN-C10MCE	Macintosh II series	15-pin D-SUB connector	

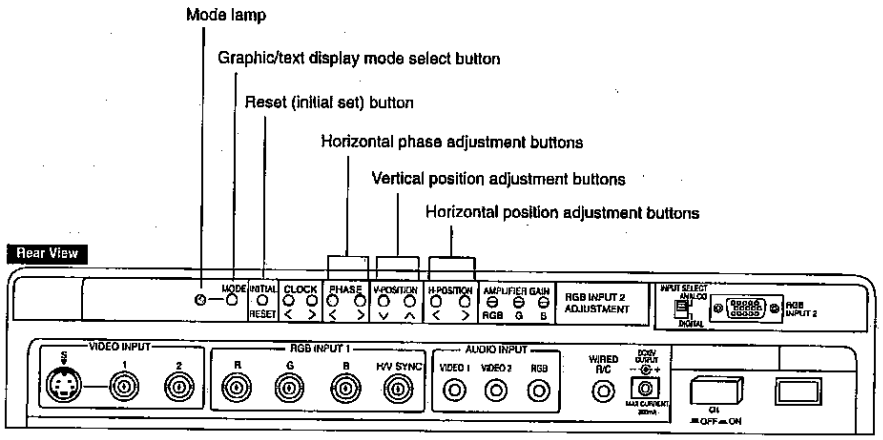

(Computer body)
RGB OUT
Rear View
Signal input terminal 2
Ferrite core
Signal input connector
Use a screwdriver to tighten the screws on each side.
Use a screwdriver to tighten the screws on each side.

Note: Please refer to the labels on the cables included, and select the correct cable for the computer to which you are connecting the projector.
VGA: IBM-PC (VGA) series
Macintosh™ : Macintosh II series

Using the RGB Input Terminals

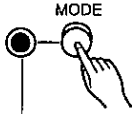
Adjustments

*Adjustments only affect signals input through RGB Input 2.



Changing the Graphic/Text display mode

Projector



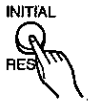
Remote control

Lamp on ..... 640 x ••• (dots)
Lamp off ..... 720 x ••• (dots)
* In 720x350 and 720x400 (dot) text mode, characters may be slightly deformed, depending on the text.

- When video input is in RGB mode, the mode lamp will flash if nothing is connected to RGB input terminal 2.
- When using in VGA mode, pressing this button changes the resolution mode. Set to correspond to the computer's operating mode.
- Press this button if an irregular picture (vertical stripes) appears while the projector is connected to a Macintosh computer.

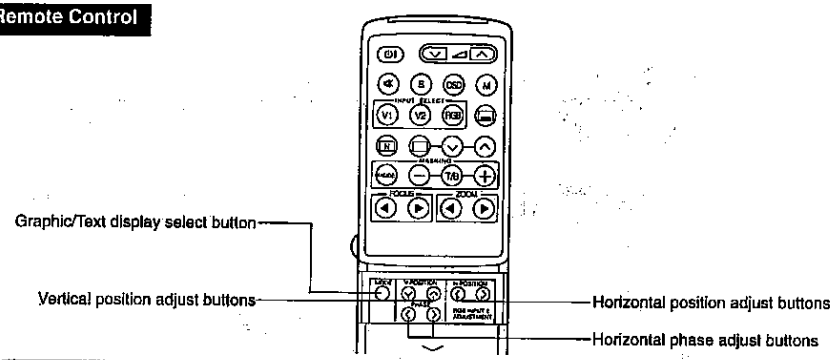
Resetting (Initial Setting)

Projector



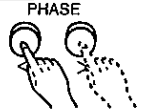
- For initial setting, be sure to press the button with the computer connected and the picture being displayed.
- Pressing this button initially sets the horizontal position adjust, vertical position adjust, horizontal phase adjust, and dot clock speed adjust data.

Remote Control

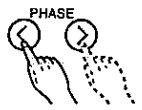

Graphic/Text display select button
Vertical position adjust buttons
Horizontal position adjust buttons
Horizontal phase adjust buttons

Adjusting the horizontal phase

Projector



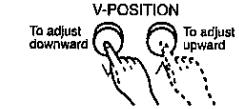
Remote control



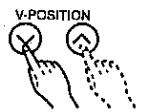
- If problems arise with flickering or poor contrast when text is being displayed, use these buttons to adjust for minimum flickering.

Adjusting the vertical position

Projector



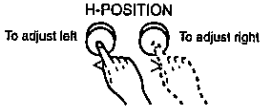
Remote control



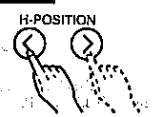
- If the picture is either too high or too low, press these buttons to adjust the picture until it is positioned in the middle of the screen.

Adjusting the horizontal position

Projector



Remote control



- If the picture is either too far to the right or too far to the left, press these buttons to adjust the picture until it is positioned in the middle of the screen.

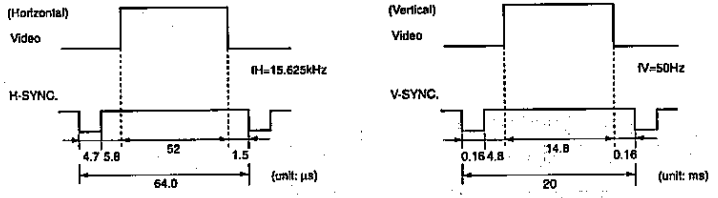
Note:
1) When displaying computer patterns which repeat every other dot (tiling, vertical stripes, etc.), interference may occur between the LCD pixels, causing flickering, vertical stripes, or contrast irregularities in portions of the screen. Should this occur, use the horizontal (<, >) and vertical (∨, ∧) adjustment buttons to adjust for the optimum picture.
2) The phenomena described in (1) may also occur when the image is inverted or reversed. Once again, use the horizontal (<, >) and vertical (∨, ∧) adjustment buttons to adjust for the optimum picture.
3) Avoid displaying computer patterns which repeat every other line (horizontal stripes). (Flickering will occur, making the picture hard to see.

Using the RGB Input Signals

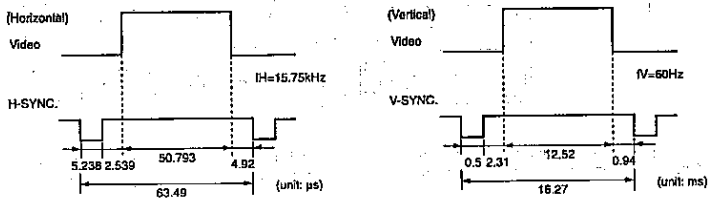
Input Signal (Recommended Signal)

•RGB Input Terminal 1

Timing chart (PAL)



Timing Chart (NTSC)



R.G.B. H/V input

Signal	Matching Value	Test conditions
RGB primary colour signal input	Difference between the peak white value and blanking level: 0.7V (±3dB) (note 1)	Positive going signal
H/V SYNC. Input	Composite video signal: Difference between white level and synchronizing level: 1V (±3dB) Impedance 75 Ω (note 2) superimposed d.c. component within 0V and +2V. When the signal on this terminal is used exclusively for synchronization purposes, the peak-to-peak voltage is 0.3V (−3, +10dB)	Positive going video

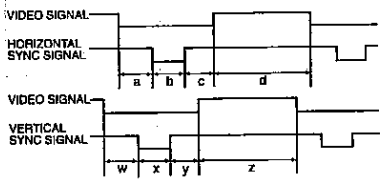
note 1: For monochrome signal the differences between any two primary colour signals shall not exceed 0.5dB. The peak values of primary colour signals are those that give rise to a peak white luminance signal.
note 2: The specified signal voltages are to be measured under matched conditions.

Input Signals (Recommended Timing)

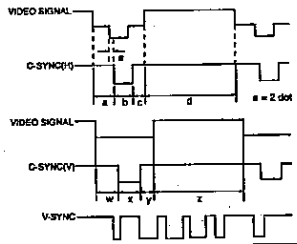
•RGB Input Terminal 2

For IBM and Compatibles

Input signals: The video output signal timings of different types of video signals are shown below for reference.



For Apple Macintosh II Series

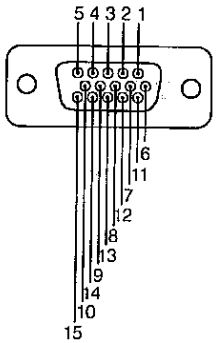


MODE			IBM					IBM	IBM	Apple	
			VGA					EGA	CGA	Macintosh II Series	
			TEXT		Graphic					13" Monitor	
			720 dot		640 dot			640 dot	640 dot	640 dot	640 dot
			350 line	400 line	350 line	400 line	480 line	350 line	200 line	480 line	480 line
VIDEO	LEVEL		0.7Vp-p 75Ω Load					TTL	TTL	1Vp-p max 75Ω Load	0.7Vp-p max 75Ω Load
	TYPE		R•G•B					R•G•B I	R•G•B I	R•G•B C.SYNC	R•G•B C.SYNC
H SYNC	FRONT PORCH	a dot	17		14			−6	95/103	64	78
	SYNC	b dot	108		96			80	64/48	64	62
	BACK PORCH	c dot	55		50			30	113/121	96	116
	VIDEO PERIOD	d dot	720		640			640	640	640	640
	1H (a+b+c+d)	dot	900		800			744	912	864	896
		µs	31.7774		31.7776			46.765	63.696	28.5714	28.595
	1 dot	ns	35.3082		39.7219			61.512	59.842	33.0688	31.914063
	1/H	kHz	31.4689		31.4688			21.851	15.700	35.0000	34.971149
	1/dot	MHz	28.322		25.175			16.257	14.318	30.2400	31.334149
	LEVEL		TTL	TTL	TTL			TTL	TTL	TTL	TTL
	SYNC POLARITY	+/−	+	−	+	−	−	+	+	−	−
V SYNC	FRONT PORCH	w H	38	13	38	13	11	1	25	3	3
	SYNC	x H	2	2	2	2	2	13	3	3	3
	BACK PORCH	y H	59	34	59	34	32	2	34	39	39
	VIDEO PERIOD	z H	350	400	350	400	480	350	200	480	480
	1V (w+x+y+z)	H	449	449	449	449	525	366	262	525	525
		ms	14.2681	14.2681	14.2681	14.2681	16.6832	16.750	16.688	15.00	15.00
	1/v	Hz	70.0866	70.0866	70.0863	70.0863	59.9405	59.702	59.92	66.67	66.67
	LEVEL		TTL	TTL	TTL	TTL	TTL	TTL	TTL		
	SYNC POLARITY	+/−	−	+	−	+	−	−	+		

Convenient Features

1 Signal Input Terminal

■ The projector uses a 15-pin, mini D-Sub connector for signal input. The relationships of each pin to the signal input are shown below.



Signal Input Connector

(Analog input)

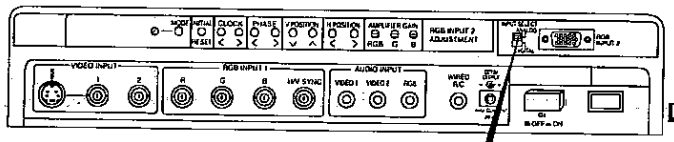
1. Video image (red)	7. GND (green)	13. Horizontal synchronous signal
2. Video image (green)	8. GND (blue)	14. Vertical synchronous signal
3. Video image (blue)	9. GND	15. Reserve input 3
4. Reserve input 1	10. GND	
5. Integrated synchronous signal (Mac II only)	11. GND	
6. GND (red)	12. Reserve input 2	

(Digital input)

1. Video image (red)	7. GND (green)	13. Horizontal synchronous signal
2. Video image (green)	8. GND (blue)	14. Vertical synchronous signal
3. Video image (blue)	9. GND	15. Video input (sub-blue)
4. Video input (sub-red)	10. GND	
5. Reserve input	11. GND	
6. GND (red)	12. Video input (sub-green)	

2 Notes Concerning Video Signal Input

■ When connecting a computer with digital signal output, before connecting the signal cable be sure that the power switch on the projector is turned OFF and the Analog/Digital select switch on the back panel is set to Digital.



Rear Terminals

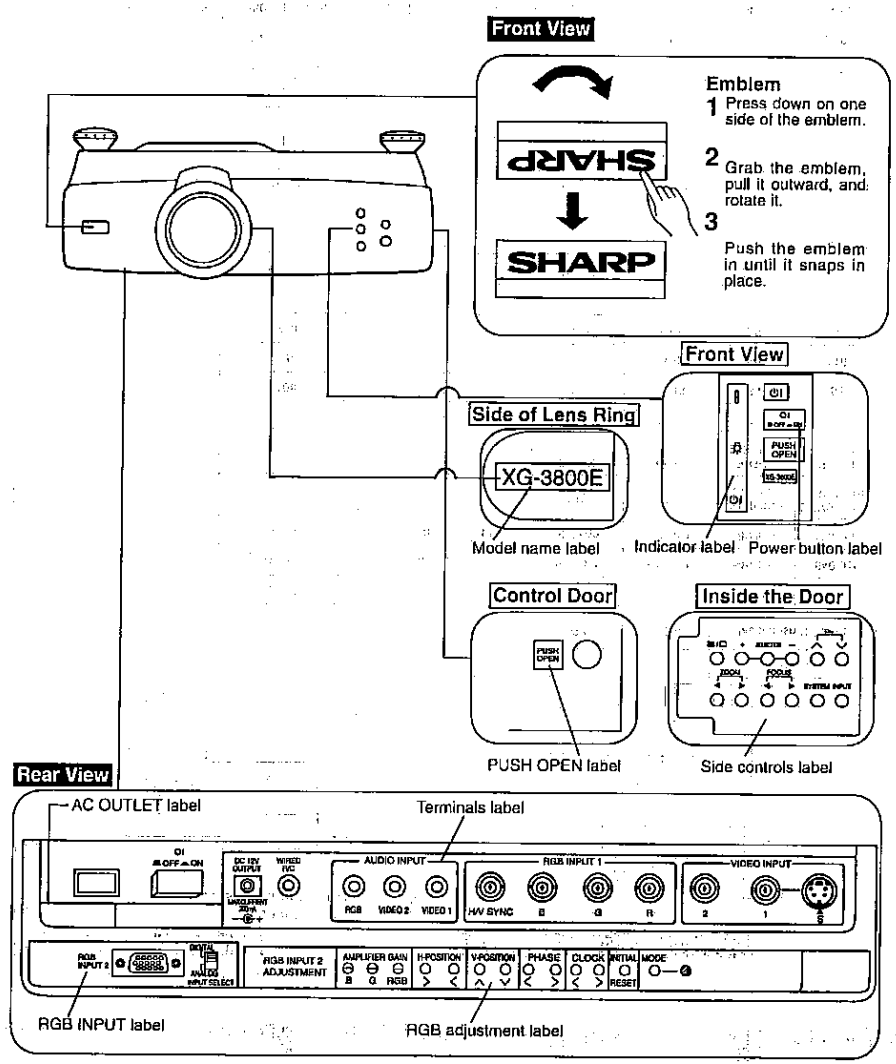
Analog/Digital select switch

Set the Analog/Digital select switch to Digital when connecting the projector to a computer with digital signal output.

- In images with specific gradations, missing dots, etc., some display discoloration or noise may occur.
- If the signal (timing chart) of the connected computer differs significantly from the recommended signal described it may not be possible to adjust to the standard picture position.

Correcting for Inverted Labeling

■ When installing the projector on the ceiling, invert the Sharp emblem and attach the supplied inverted labels to each area as shown.

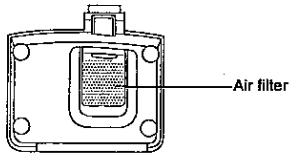


Maintenance

Air Filter

- The air filter should be cleaned every 100 hours. Clean the filter more often when the projector is used in a dusty or smoky location.
- You can change the Filter by yourself.
  You can buy the Filter at your local Authorized Dealer.

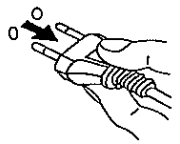
Bottom View



Cleaning the Filter

1 Unplugging the power cord

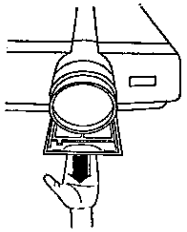
Unplug the power cord.



In some areas, the plug may not resemble the one shown in the illustration.

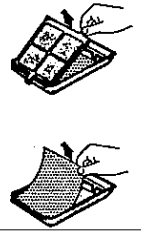
2 Remove the filter cover.

Grasp the filter cover by the depressed portion and pull toward you.



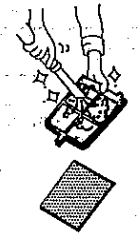
3 Remove the air filter.

Grasp the air filter tab between your fingers and pull to remove. Remove the sponge filter.



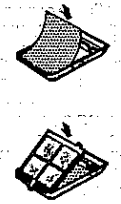
4 Clean the air filter.

Clean the dust off the air filter and the sponge filter with a vacuum cleaner.



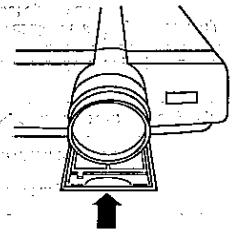
5 Replace the air filter.

Replace the sponge filter and the air filter in the filter cover.



- Be careful not to bend the filter.

6 Replace the filter cover.



Note:

- Be sure that the filter cover is securely installed. The power cannot be turned on unless it is correctly installed.

Lamp

- The projector's lamp has a limited operating life.

When the lamp is nearly burned out, the picture and colour quality deteriorate. In this event, have the lamp replaced by qualified service personnel.

Replacing the projector lamp requires special technical expertise and should be performed by your local Sharp dealer or Sharp Service Station.

Warning lamps

- This projector is equipped with warning indicators that TURN on when an abnormal condition occurs.
- There are warning indicators in the projector: the temperature warning lamp and lamp replacement indicator.
- If the projector malfunctions, the temperature warning lamp or the lamp replacement indicator will light red and the power is turned off. Perform the following procedures when you have turned off the main power switch.

Warning Indicator	Symptom	Problem	Possible Solution
Temperature	The temperature inside is too high.	• Are the air vents blocked?	• Install the projector in an appropriate location.
		• Is the air filter clogged?	• Clean the filter as described
		• Is the cooling fan defective? • Are any of the internal circuits defective?	• Turn in the projector for service.
Projector lamp	The projector lamp does not light.	• Has the projector lamp reached the end of its life? • Is the projector lamp circuit defective?	• Turn in the projector for service.

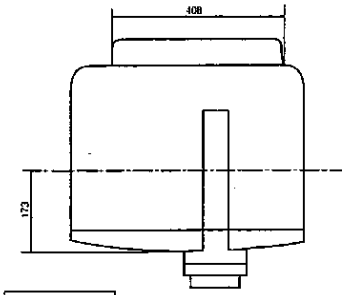
NOTE:

When a condition which caused the temperature warning lamp to TURN on has been processed, wait for the projector to cool down and the warning lamp to TURN off before powering up the projector again.
When the power is turned off and then turned on again such as during a brief rest, the lamp replacement indicator may be triggered preventing the power to go TURN. When this happens, take the power plug out of the AC outlet and put it back in again.

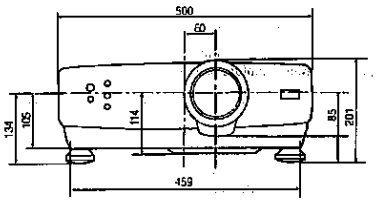
Before Calling for Service

No picture	• The projector is not plugged into the mains supply. • The MAIN POWER switch is set to off. • The BRIGHT (﹀) control is set to the minimum position.
Colour is poor or faded	• Check that the COLOUR (﹀) and (﹀) controls are properly adjusted.
Picture is blurred	• Adjust the focus • The projection distance is too long or short to allow for proper focus.
An unusual sound is occasionally heard from cabinet	• If picture is normal, the sound is due to cabinet shrinkage caused by temperature changes. This will not effect operation.
Maintenance indicator lights up	• Refer to "Warning lamps".

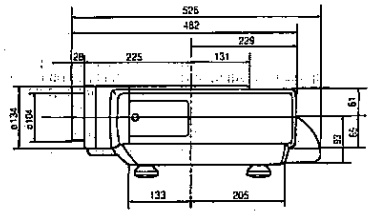
Dimensional Diagrams



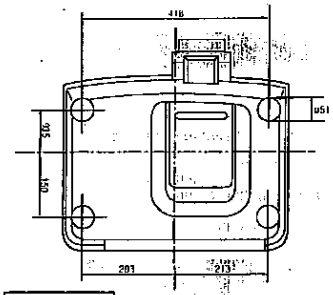
Top



Front



Side



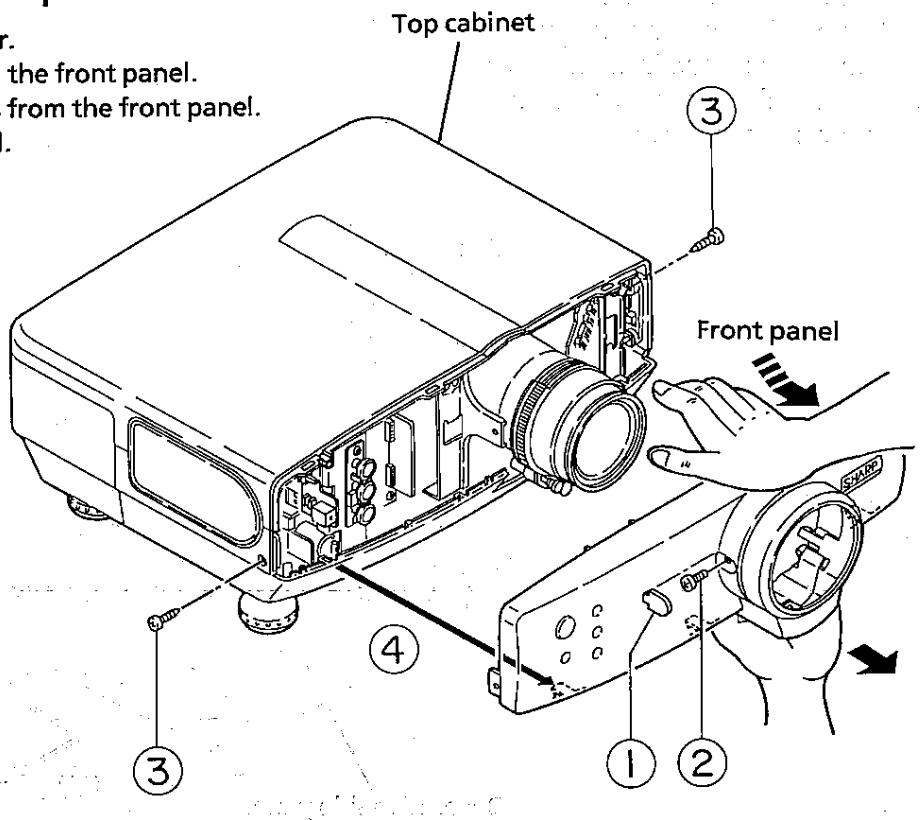
Bottom

(Unit: mm)

REMOVING THE MAJOR PARTS

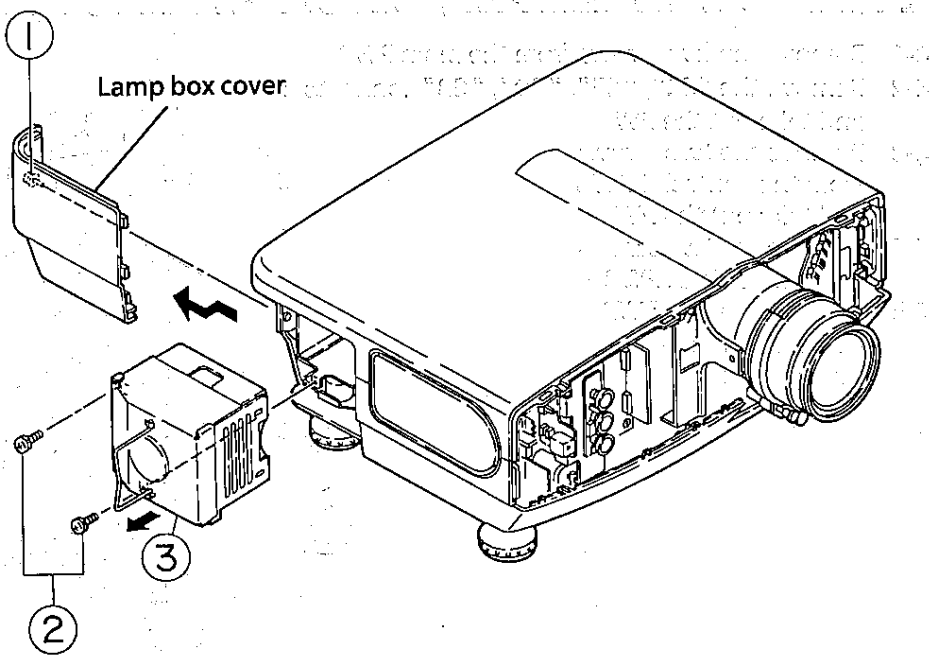
1. Removing the front panel.

1-1. Remove the screw cover.
1-2. Remove the screw from the front panel.
1-3. Remove the two screws from the front panel.
1-4. Remove the front panel.



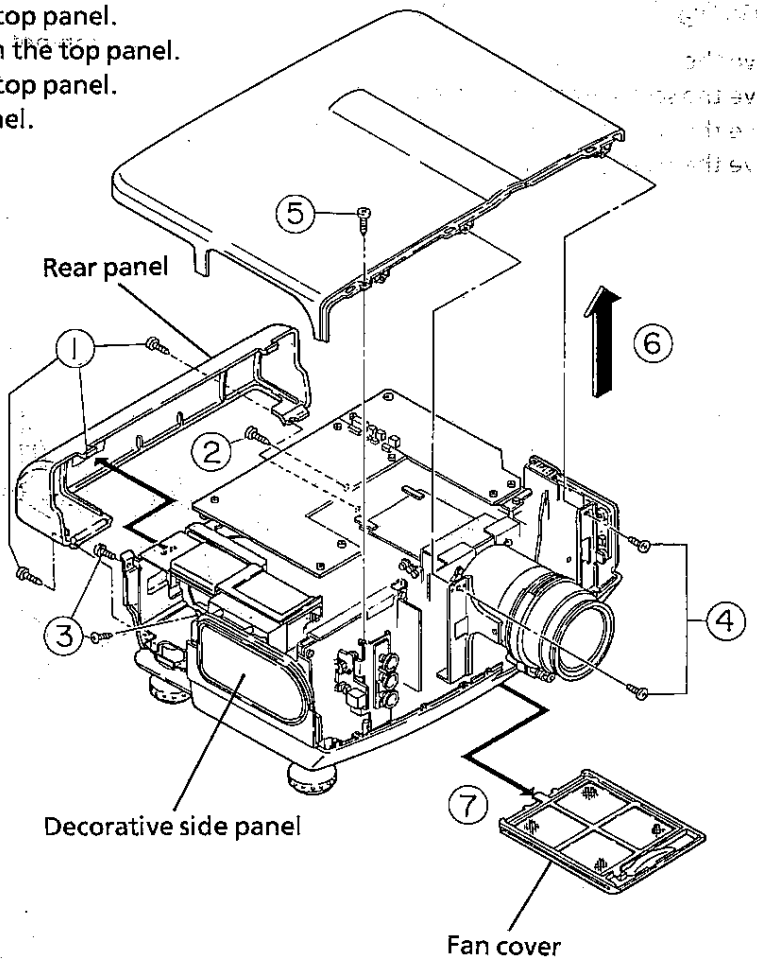
2. Removing the lamp box.

2-1. Remove the screw from the lamp box cover and detach the cover.
2-2. Remove the two screws from the lamp box.
2-3. Take out the lamp box.



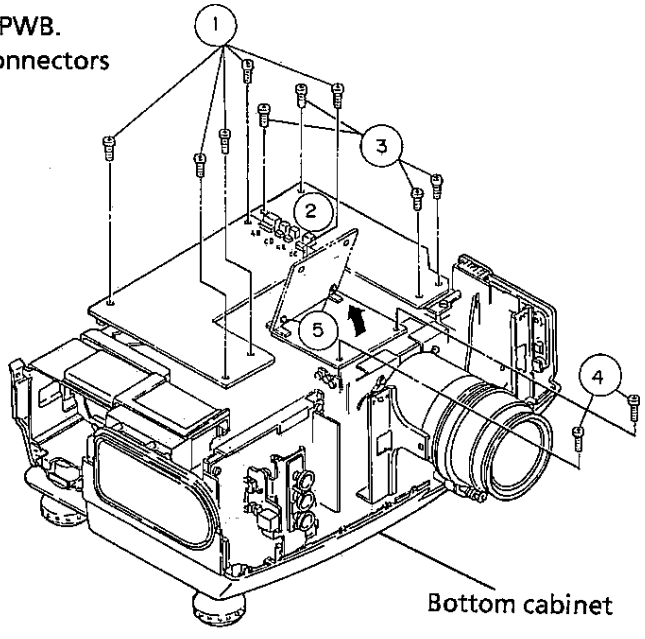
3. Removing the top and rear panels and the fan cover.

3-1. Remove the two screws from the rear panel and unhook the panel.
3-2. Remove the screw from the top panel.
3-3. Remove the screw from the top panel.
3-4. Remove the two screws from the top panel.
3-5. Remove the screw from the top panel.
3-6. Lift and take out the top panel.
3-7. Remove the fan cover.



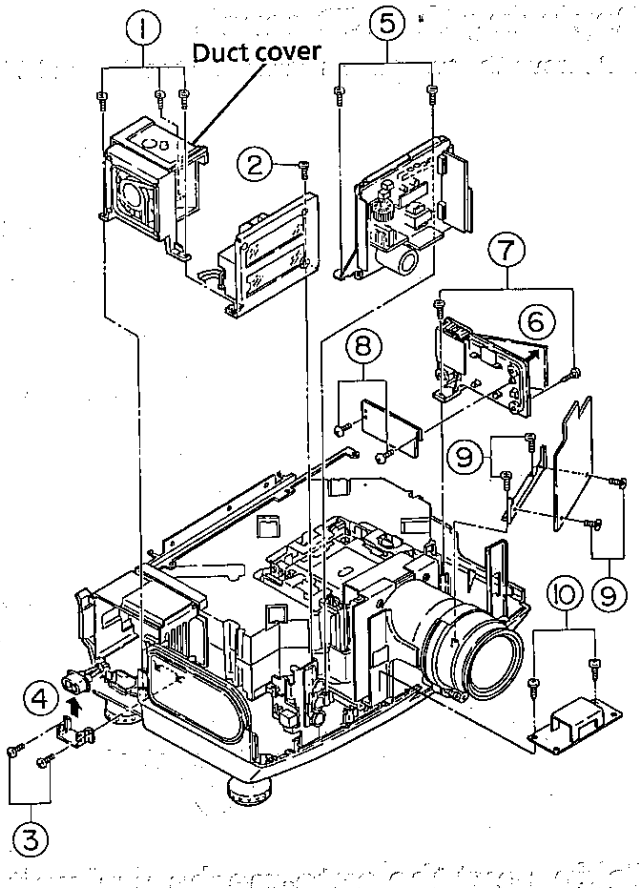
4. Taking out the main PWB, control-1 PWB and output PWB.

4-1. Remove the five screws from the main PWB.
4-2. Remove the "CC", "CE", "CD", "GB" connectors and take out the PWB.
4-3. Remove the two screws from the control-1 PWB and take out the PWB.
4-4. Remove the two screws from the output PWB.
4-5. Remove the two PWB holders and take out the output PWB.



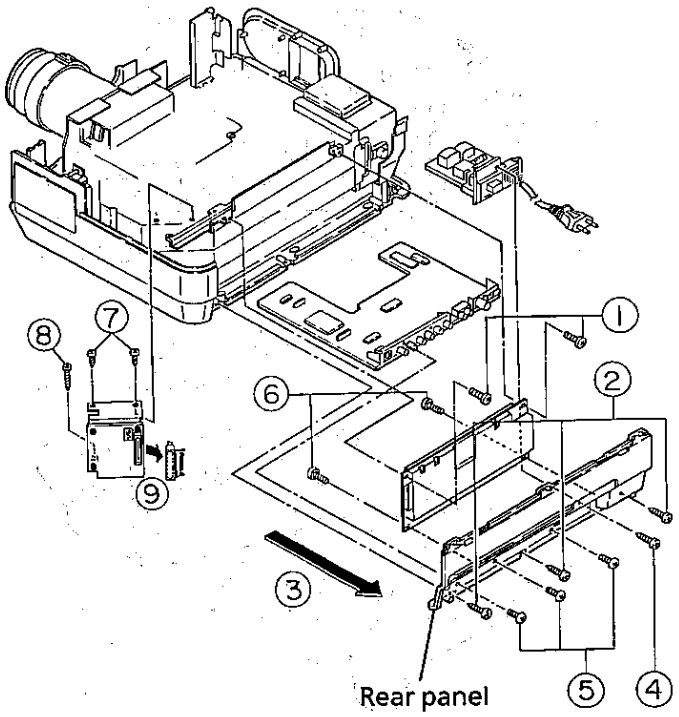
5. Taking out the PWBs.

5-1. Remove the three screws from the fan unit and take out the fan unit.
5-2. Remove the screw from the ballast unit and take out the ballast unit.
5-3. Remove the two screws from the lamp socket bracket.
5-4. Detach the lamp socket from the bracket.
5-5. Remove the two screws from the power unit and take out the unit.
5-6. Open the operation unit door.
5-7. Remove the two screws from the operation unit and take out the unit.
5-8. Remove the two screws from the control PWB unit and take out the unit.
5-9. Remove the two screws from the bracket of the P/S converter PWB.
5-10. Remove the two screws from the amplifier PWB and take out the PWB.



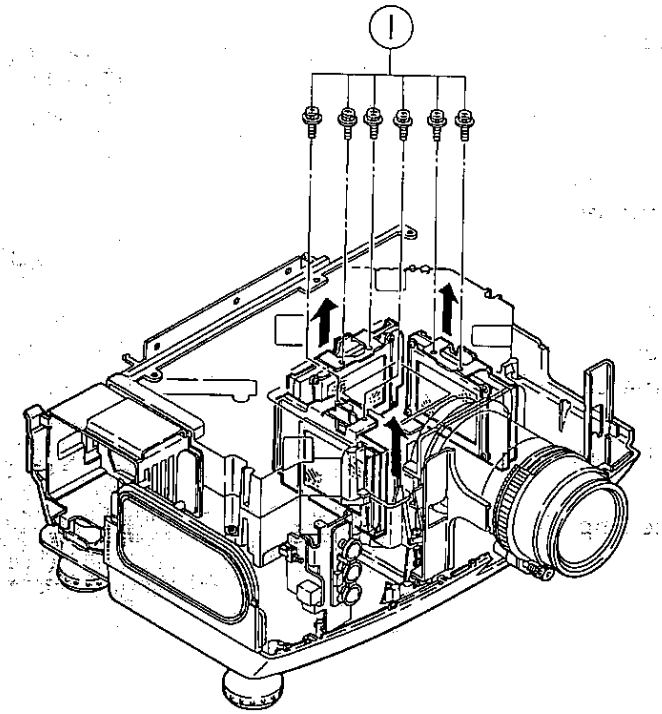
6. Taking out the sub PWB, PC-IF PWB and control-2 PWB

6-1. Remove the two screws from the PC-IF unit.
6-2. Remove the three screws from the rear panel.
6-3. Take out the rear panel.
6-4. Remove the screw from the AC input PWB.
6-5. Remove the three screws from the sub PWB and take out the PWB.
6-6. Remove the two screws from the PC-IF PWB and take out the PWB.
6-7. Remove the two screws from the PWB angle.
6-8. Remove one screw from the PWB angle.
6-9. D's connect the connector "VG" and pull out the control-2 PWB.



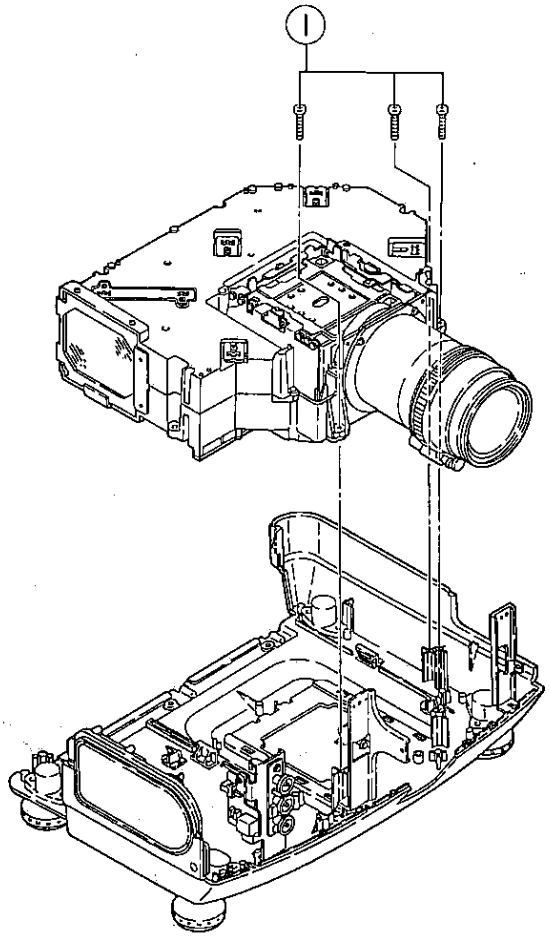
7. Replacing the LCD panels

7-1. Remove the two screws each from the R, G and B LCD panels and take out the panels.



8. Taking out the opto-mechanical unit

8-1. Remove the three screws from the opto-mechanical unit and take out the unit.

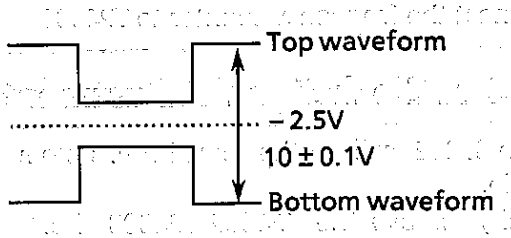


ELECTRICAL ADJUSTMENT

1. VCO Oscillation Adjustment : Controller PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "MONOSCOPE PATTERN" signal. 2. Make a short-circuit between TP6001 and TP6002. 3. Finally remove the TP6001-TP6002 short-circuit.	1. Adjust L6001 so that the horizontal sync be ensured on the screen. Now remove the short-circuit.

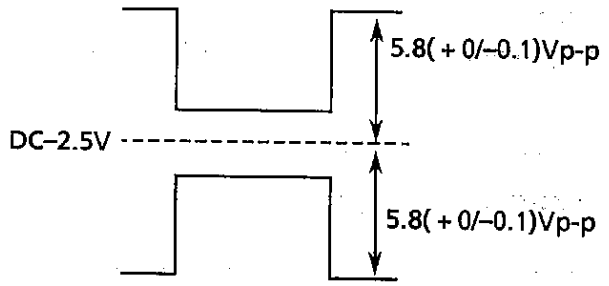
2. Rough Bias Adjustment: Main PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "MONOSCOPE PATTERN" signal. 2. Connect the oscilloscope to TP1501 and observe the waveform. 3. Connect the oscilloscope to TP1502 and observe the waveform. 4. Connect the oscilloscope to TP1503 and observe the waveform.	1. Adjust R1680 and R1570 so that the difference between the black peak and the black bottom be 10 ± 0.1V with the – 2.5V level at the center. 2. Adjust R1677 so that the difference between the black peak and the black bottom be 10 ± 0.1V with the – 2.5V level at the center. 3. Adjust R1683 so that the difference between the black peak and the black bottom be 10 ± 0.1V with the – 2.5V level at the center. 

3. Counter Bias Adjustment: Controller PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "MONOSCOPE PATTERN" signal. 2. Press the counter bias adjustment key on the remote controller. The red colour alone appears. 3. Press the above key again. The green colour alone appcars. 4. Press the above key once again. The blue colour alone appears.	1. Adjust R6072 until the sharpest contrast is achieved. 2. Adjust R6079 until the sharpest contrast is achieved. 3. Adjust R6086 until the sharpest contrast is achieved.

4. Peak Clip Adjustment: Output PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "MONOSCOPE PATTERN" signal. 2. With the remote controller, reduce the brightness to minimum. 3. Connect the oscilloscope to TP1501 and observe the waveform.	1. Adjust R1558 so that the top clip point be 5.8 (+ 0/ – 0.1) Vp-p above the DC – 2.5 V level. 2. Adjust R1556 so that the bottom clip point be 5.8 (+ 0/– 0.1) Vp-p below the DC – 2.5 V level. 

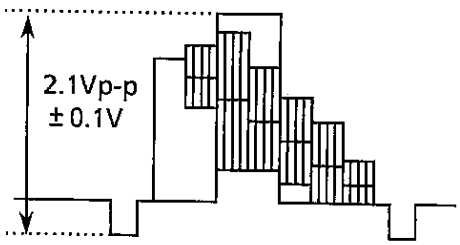
5-1. 4fsc Clock Signal Adjustment (14.3 MHz): Sub PWB

Adjusting Conditions	Adjusting Procedures
1. Do not input any signal. 2. With S2302, call up the forced N3.58 system mode. 3. Make a short-circuit between TP4002 and TP4003 to bring about the free-run state. 4. Connect the frequency counter to TP4001.	1. Adjust C4050 so that the frequency counter reads 14.31818 MHz ± 80 Hz.

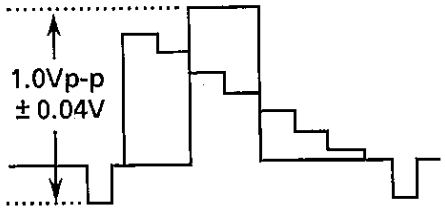
5-2. 4fsc Clock Signal Adjustment (17.7MHz): Sub PWB

5. With S2302, call up the forced PAL system mode. 6. Finally remove the TP4002-TP4003 short-circuit.	2. Adjust C4051 so that the frequency counter reads 17.734475 MHz ± 80 Hz.

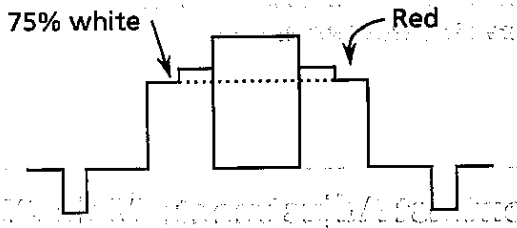
6. Video Signal Level Adjustment: Sub PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "COLOUR BAR" signal. 2. Connect the oscilloscope to TP4004 and observe the waveform.	1. Adjust R4059 so that the difference between the white sync tip and the black sync tip be 2.1 ± 0.1 Vp-p. 

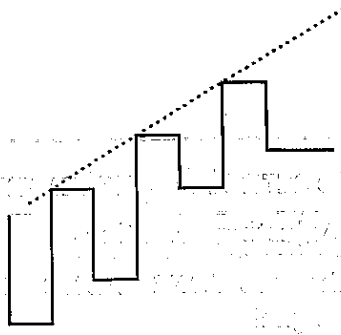
7. Y Signal Level Adjustment: Sub PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "COLOUR BAR" signal. 2. Connect the oscilloscope to TP4005 and observe the waveform.	1. Adjust R4037 so that the difference between the white sync tip and the black sync tip be 1.0 ± 0.04Vp-p. 

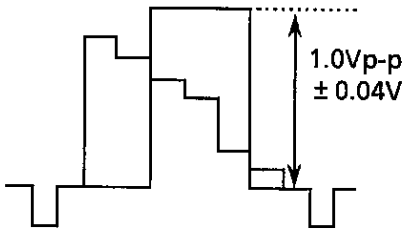
8. Colour Density Adjustment: Sub PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "COLOUR BAR" signal. 2. Connect the oscilloscope to TP803 and observe the waveform.	1. Adjust R817 so that the 75% white level and the red level be the same. 

9. Tint Adjustment: Sub PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "COLOUR BAR" signal. 2. Connect the oscilloscope to TP805 and observe the waveform.	1. Adjust R890 so that the B-Y signal waveform be linearly going up. 

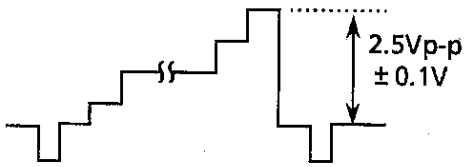
10. Y Level Adjustment: Sub PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "COLOUR BAR" signal. 2. Connect oscilloscope to TP801 and observe the waveform.	1. Adjust R878 until the waveform amplitude becomes maximum. 2. Adjust R487 so that the difference between the pedestal and the white level be 1.0 ± 0.04 Vp-p. 

11. AGC Adjustment: Sub PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "COLOUR BAR" signal. 3. Connect the oscilloscope to TP801 and observe the waveform.	1. Adjust R878 so that the difference between the pedestal and the white level (in the above-mentioned waveform) be 0.7 ± 0.02 Vp-p.

12. Contrast Adjustment: Main PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "10-TONE MONOCHROME PATTERN" signal. 2. Connect the oscilloscope to TP1401 and observe the wave form.	1. Adjust R1491 so that the difference between the pedestal and the white level be 2.5 ± 0.1 Vp-p. 

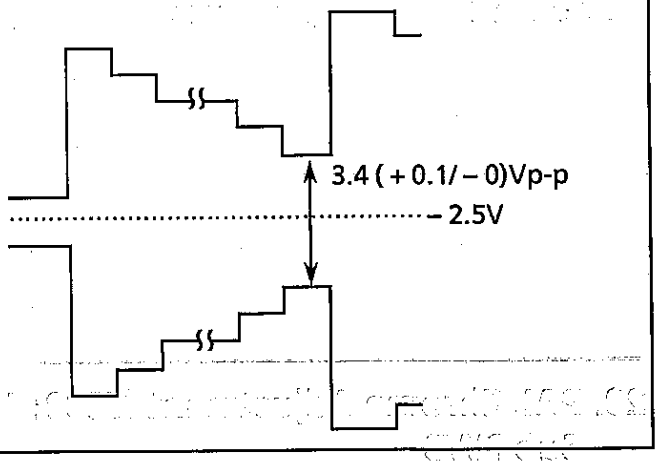
13. Sub-Contrast Adjustment: Main PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "10-TONE MONOCHROME PATTERN" signal. 2. Connect the oscilloscope's CH1 and CH2 to TP1401 and TP1403, respectively. 3. Invert the CH2 signal and add the CH1 and CH2 waves in the ADD mode. 4. Next connect the oscilloscope's CH2 to TP1402. 5. Invert the CH2 signal and add the CH1 and CH2 waves in the ADD mode.	1. Adjust R1405 so that the waveform on the oscilloscope screen be as straight as possible. 2. Adjust R1401 so that the waveform on the oscilloscope screen be as straight as possible.

14. Gamma Adjustment: Main PWB

Adjusting Conditions	Adjusting Procedures
1. Connect the voltmeter between TP1407 and the GND terminal. 2. Connect the voltmeter between TP1408 and the GND terminal.	1. Adjust R1714 so that the voltage at TP1407 be DC 5.50 ± 0.01V. 2. Adjust R1692 so that the voltage at TP1408 be DC 4.90 ± 0.01V.

15. Bias Adjustment: Main PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "10-TONE MONOCHROME PATTERN" signal. 2. Connect the oscilloscope to TP1501 and observe the waveform.	1. Adjust R1680 and R1570 so that the difference between the white peak and the white bottom be 3.4 (+0.1/−0) Vp-p with the −2.5V level at the center. 

16. Sub-Bias Adjustment: Main PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "10-TONE MONOCHROME PATTERN" signal. 2. Connect the oscilloscope's CH1 and CH2 to TP1501 and TP1502, respectively. 3. Set the oscilloscope to the ADD range. 4. Next connect the CH2 to TP1503. 5. Set the oscilloscope to the ADD range.	1. Adjust R1677 so that the waveform on the oscilloscope screen be as straight as possible. 2. Adjust R1683 so that the waveform on the oscilloscope screen be as straight as possible.

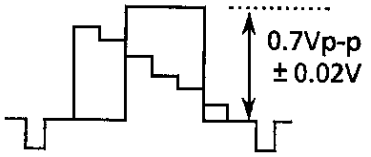
17. Horizontal Center Adjustment: Controller PWB

1. Display the "MONOSCOPE PATTERN" signal.	1. Adjust R6045 so that the image be symmetrical about the vertical center line.

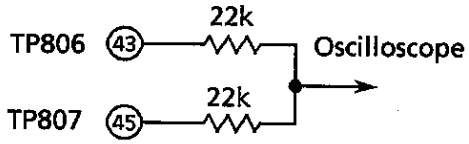
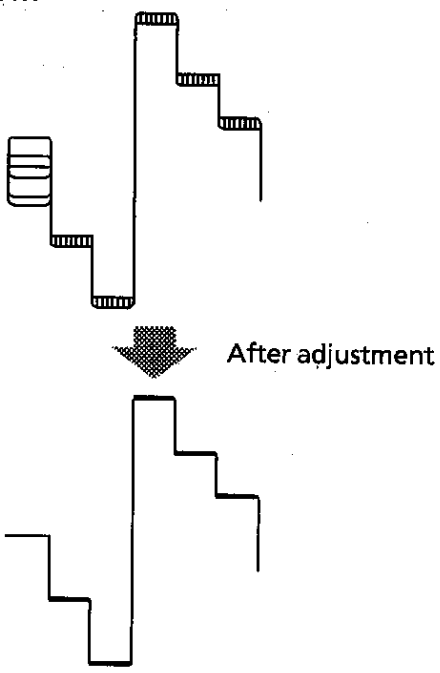
18. Free-Run Frequency Adjustment: Scan Converter PWB

Adjusting Conditions	Adjusting Procedures
1. Make a connection between TP1001 and the GND terminal. 2. Connect the frequency counter between TP1002 and the GND terminal.	1. Adjust L1001 so that the frequency counter reads 15.625 ± 0.01 kHz.

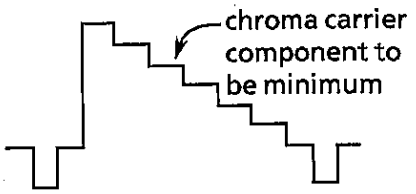
19. PAL/SECAM Y Level Adjustment: Scan Converter PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "E-12ch (PAL colour bar)" signal. 2. Connect the oscilloscope to TP1404.	1. Adjust R1128 so that the difference between the pedestal and the white level be 0.7 ± 0.02 Vp-p. 

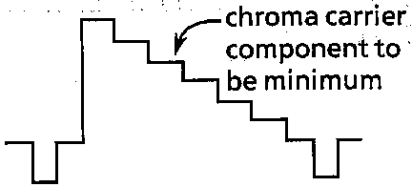
20. PAL Chroma Adjustment (T803: 1H-DL Phase, R812: 1H-DL Amp.): Sub PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "PAL COLOUR BAR" signal. 2. Connect the oscilloscope as shown below. 	1. Adjust T803 and R812 to obtain the waveform as shown below. 

21. Chroma Trap Adjustment: Sub PWB

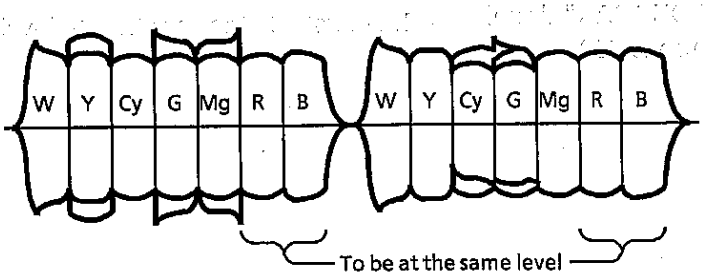
Adjusting Conditions	Adjusting Procedures
1. Display the "PAL COLOUR BAR" signal. 2. Connect the oscilloscope TP401.	1. Adjust T401 so that the chroma carrier component be minimum. 

22. SECAM Trap Adjustment (T402): Sub PWB

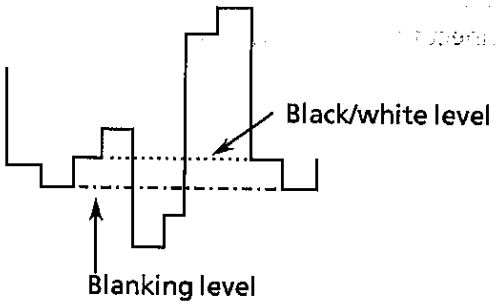
Adjusting Conditions	Adjusting Procedures
1. Display the "SECAM COLOUR BAR" signal. 2. Connect the oscilloscope to TP401.	1. Adjust T402 so that the chroma carrier component be minimum. 

23. SECAM Bell Filter Adjustment (T801): Sub PWB

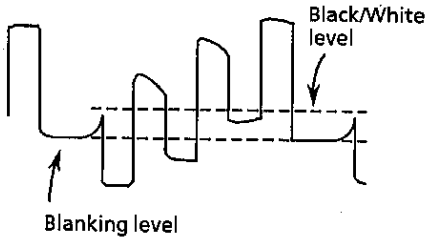
Adjusting Conditions	Adjusting Procedures
1. Display the "SECAM COLOUR BAR" signal. 2. Connect the oscilloscope to TP808.	1. Adjust T801 to obtain the waveform as shown below.



24. SECAM R-Y Discriminability (T804): Sub PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "SECAM COLOUR BAR" signal. 2. Connect the oscilloscope to TP807. 3. Add a 0.001-μF capacitor between TP807 and the GND terminal to remove noises.	 1. Adjust T805 so that the blanking level and the black/white level be the same.

25. SECAM R-Y Discriminability (T805): Sub PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "SECAM COLOUR BAR" signal. 2. Connect the oscilloscope to TP806. 3. Add a 0.001-μF capacitor between TP806 and the GND terminal.	1. Adjust T804 so that the blanking level and the black/white level be the same. 

26. SECAM ID Discriminability (T802): Sub PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "SECAM COLOUR BAR" signal. 2. Connect the oscilloscope to TP809.	1. Adjust T802 so that the DC level be maximum.

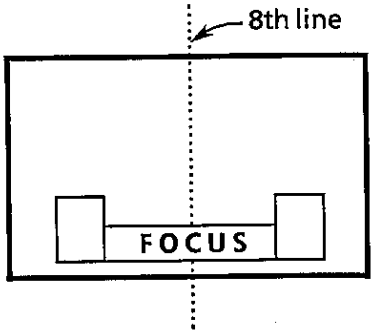
27. PAL/SECAM Sub-Contrast Adjustment: Sub PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "PAL MONOSCOPE PATTERN" signal. 2. Connect the oscilloscope's to CH1 and CH2 to TP1404 and TP1405, respectively. 3. Invert the CH2 signal and add the CH1 and CH2 waves in the ADD mode. 4. Next connect the oscilloscope's CH2 to TP1406. 5. Invert the CH2 signal and add the CH1 and CH2 waves in the ADD mode.	1. Adjust R1441 so that the waveform on the oscilloscope screen be as straight as possible. 2. Adjust R1445 so that the waveform on the oscilloscope screen be as straight as possible.

28. PAL/SECAM Horizontal Center Adjustment: Sub PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "PAL MONOSCOPE PATTERN" signal.	1. Adjust R614 so that the image be symmetrical about the vertical center line.

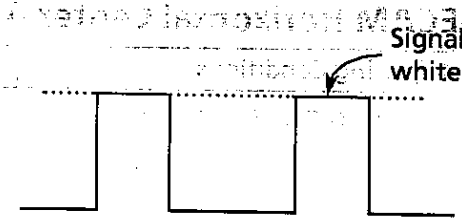
29. On-Screen Sign Position Adjustment: Main PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "CROSSHATCH PATTERN" signal.	1. Adjust T2001 to position the sign as shown below. 

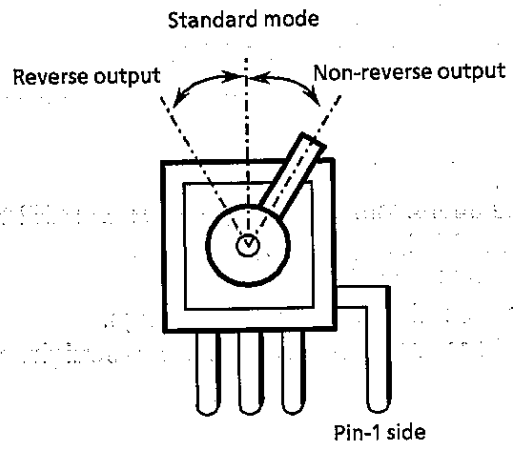
30. White Balance Adjustment: Sub PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "MONOSCOPE PATTERN" signal.	1. Adjust R1677 (R sub-bias) and R1683 (R sub-bias) and visually check the white balance.

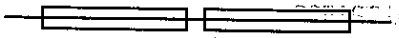
31. Sign Level Adjustment: Main PWB

Adjusting Conditions	Adjusting Procedures
1. Display the "COLOUR BAR" signal. 2. Connect the oscilloscope to TP1401.	1. Adjust R1489 so that the white level and the sign level be the same. 

32. R/G/B Offset (Reverse and Non-Reverse Center Bias Adjustment): S1601, R1609(R), R1610(G), R1610(B)

Adjusting Conditions	Adjusting Procedures
1. Call up the RGB mode. 2. Bring about the standard mode with no input signal. 3. Set the service switch (S6003) toward the Pin-1 side for non-reverse output. 4. Connect the digital voltmeter to TP1601 and TP1502. 5. Set the service switch (S6003) to the reverse output position (opposite the Pin-1 side).  	**● R offset adjustment** 1. Mcasure the voltage at TP1601 (center of R1570) and use it as reference. Read the voltage at TP1502 (R1 output). 2. Adjust R1612 so that the voltages at TP1601 and TP1502 be the same as the previous reading (absolute voltage). (Error ±5 mV) **● G offset adjustment** 1. Measure the voltage at TP1601 (center of R1570) and use it as reference. Read the voltage at TP1501 (G1 output). 2. Adjust R1613 so that the voltages at TP1601 and TP1501 be the same as the previous reading (absolute voltage). (Error ±5 mV) **● B offset adjustment** 1. Measure the voltage at TP1601 (center of R1570) and use it as reference. Read the voltage at TP1503 (B1 output). 2. Adjust R1614 so that the voltages at TP1601 and TP1503 be the same as the previous reading (absolute voltage). (Error ±5 mV) Return the service switch (S6003) to the center (standard mode) position.

33. R/G/B Gain Adjustment: R5600(R), R5599(G), R5598(B)

Adjusting Conditions	Adjusting Procedures
1. Call up the RGB mode. 2. Run the personal computer to feed the "gray scale" signal. (See the accompanying sheet for inputting procedeure.)	**● R gain adjustment** 1. Connect the dual-beam oscilloscope's CH1 and CH2 to TP1502 and TP1504, respectively. (1.0 V/div., 10-20 μsec/div.) 2. Set the above oscilloscope to the ADD range. 3. Adjust R5600 so that the waveform be as straight as possible.  **● G gain adjustment** 1. Connect the dual-beam oscilloscope's CH1 and CH2 to TP1504 and TP1505, respectively. (1.0 V/div., 10-20 μsec/div.) 2. Set the above oscilloscope to the ADD range. 3. Adjust R5599 so that the waveform be as straight as possible. **● B gain adjustment** 1. Connect the dual-beam oscilloscope's CH1 and CH2 to TP1503 and TP1506, respectively. (1.0 V/div., 10-20 μsec/div.) 2. Set the above oscilloscope to the ADD range. 3. Adjust R5598 so that the waveform be as straight as possible.

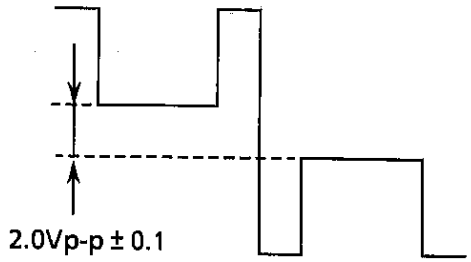
● Gray Scale Program for Personal Computers

IBM-PC

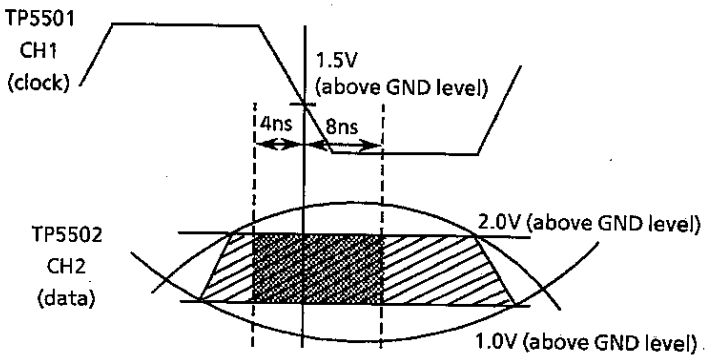
```
100  DEFINT A-Z
110  OPTION BASE 1
120  DIM PRO2 (12)
130  I = 0:J = 0:K = 0:P = 0:Q = 0
140  '
150  SCREEN 0, 1:COLOR 0, 0:WIDTH 40:CLS
160  FOR I = 0 TO 15
170  FOR J = 1 TO 23:LOCATE J, I*2 + 1
180  COLOR I, I:PRINT CHR$ (219);CHR$ (219);
190  NEXT J, I
200  GOSUB 610
210  A$ = ""
220  A$ = INKEY$
230  IF A$ = "" THEN 210
240  GOSUB 930
250  P = 15:GOSUB 710
260  A$ = ""
270  A$ = INKEY$
280  IF A$ = "" THEN 260
290  P = 12:GOSUB 710
300  A$ = ""
310  A$ = INKEY$
320  IF A$ = "" THEN 300
330  P = 11:GOSUB 710
340  A$ = ""
350  A$ = INKEY$
360  IF A$ = "" THEN 340
370  GOSUB 820
380  A$ = ""
390  A$ = INKEY$
400  IF A$ = "" THEN 380
410  GOSUB 930
420  COLOR 7, 0
430  WIDTH 80
440  CLS
450  END
460  '
470  DATA &H50
480  DATA &H53
490  DATA &H51
500  DATA &H52
510  DATA &HB8, &H10, &H10
520  DATA &HBB, &H00, &H00
530  DATA &HB9, &H00, &H00
540  DATA &HBA, &H00, &H00
550  DATA &HCD, &H10
560  DATA &H5B
570  DATA &H59
580  DATA &H5D
590  DATA &H58
600  DATA &HcB, &H90
610  '
620  Q = VARPTR (PRO2 (1))
630  RESTORE 470
640  FOR I = 0 TO 23
650  READ J
660  POKE (Q + I), J
670  NEXT I
680  SUB2 = VARPTR (PRO2 (1))
690  CALL SUB2
700  RETURN
710  '
720  Q = VARPTR (PRO2 (1))
730  POKE (Q + 11), 0:POKE (Q + 12),
     0:POKE (Q + 15), 0
740  FOR I = 0 TO 15
750  Q = VARPTR (PRO2 (1))
760  POKE (Q + 8), I
770  POKE (Q + P), I*4.2
780  SUB2 = VARPTR (PRO2 (1))
790  CALL SUB2
800  NEXT I
810  RETURN
820  '
830  Q = VARPTR (PRO2 (1))
840  POKE (Q + 11), 0:POKE (Q + 12),
     0:POKE (Q + 15), 0
850  FOR I = 0 TO 15
860  Q = VARPTR (PRO2 (1))
870  POKE (Q + 8), I
880  POKE (Q + 11), I*4.2:POKE (Q + 12), I*4.2:POKE
     (Q + 15), I*4.2
890  SUB2 = VARPTR (PRO2 (1))
900  CALL SUB2
910  NEXT 1
920  RETURN
930  '
940  FOR I = 0 TO 15
950  PALETTE I, I
960  NEXT
970  RETURN
```

RUN	Red scale
SPACE	Green scale
SPACE	Blue scale
SPACE	Gray scale

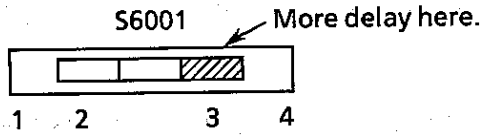
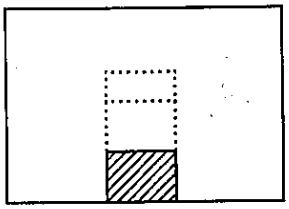
34. R/G/B Sub-Bias (White Balance) Adjustment: R5585(R), R5587(G), R5614(B)

Adjusting Conditions	Adjusting Procedures
1. Feed the R/G/B mode white-only signal. 2. Connect the oscilloscope to TP1502 and observe the waveform. 3. Repeat the above step 2 for the G and B signals. G: TP1501 B: TP1503	1. Adjust R5646 so that the difference between the white peak and the white bottom be 2.0 (+0.1/-0) Vp-p. G: R5647 B: R5648  2. Visually check the white balance. If out of spec, make adjustment using R5585 and R5614.

35. Clock Delay Adjustment (S6002)

Adjusting Conditions	Adjusting Procedures
1. Feed the "checkered pattern" signal. 2. Press the RESET key on the PC-IF PWB. Using the PHASE control, make the checkered pattern clearest. 3. Connect the oscilloscope's CH1 and CH2 to TP5501 and TP5502. (Ground TP5503.) (Over 100 MHz, probe to be less than 20 pF, CHOP mode, 1 V/div., 10 nsec/div,)	1. Adjust S6002 to meet the requirements given in the figure below.  Condition: The hatched trapezoidal area is produced by the CH2 data signal and the 1.0V as well as 2.0V levels. The shaded rectangular area is produced by the leading edge (at 1.5V) of the CH1 clock signal in the 4-nsec plus 8-nsec range. The shaded area should be inside the hatched area.

36. H Reset Delay Adjustment (S6001)

Adjusting Conditions	Adjusting Procedures
1. Feed the "checkered pattern" signal.  	1. Adjust S6001 until the symptom shown below disappears.  Black stripe looks flapping. (1) When the above symptom does not appear regardless of the position of the S6001 control, set it to the center position. (2) If the symptom appears with the control at one end, set it to the other end. (3) If the symptom appcars with the control at the center position, set it toward the more-delay side.

37. Horizontal Phase Adjustment: DAC on Remote Controller

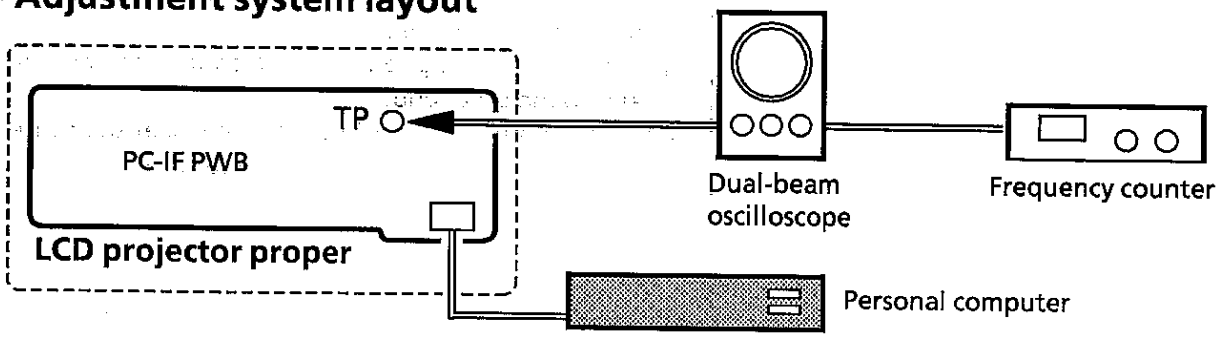
Adjusting Conditions	Adjusting Procedures
1. Feed the "checkered pattern" signal.	(1) Call up the PROCESS IN mode using the remote controller. (2) With the video select key, select the horizontal phase mode. (3) With the DAC (+) and DAC (−) keys, make the vertical stripes invisible.

ADJUSTMENT OF THE PC-IF PWB

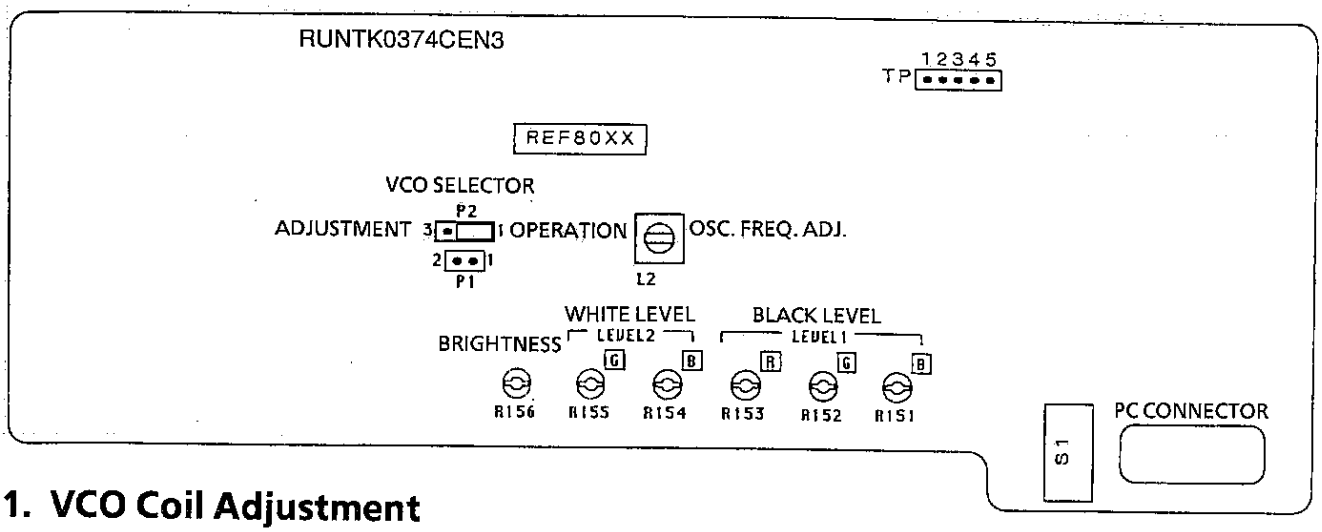
■ Adjustment of the analog and digital sections

Instruments/tools	Remarks
Frequency counter	Low-capacitance probe as FET probe
Dual-beam oscilloscope	
Personal computer	PC-9801, IBM-PC (VGA, JECA, EGA, CGA), Machintosh series
Core adjustment screwdriver	
Control adjustment screwdriver	

■ Adjustment system layout



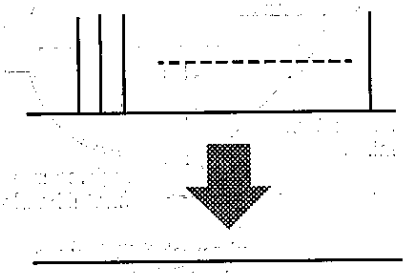
■ Location of controls



1. VCO Coil Adjustment

Adjusting Conditions	Adjusting Procedures
☐ Test Point: TP3 ☐ Adjusting Point: L8002	1. Turn power off. 2. Connect the frequency counter to TP3. 3. Disconnect the cable from the PC connector. Reposition the P2 short pin to the 2—3 position and turn on the power, 4. Adjust L8002 until the oscillation frequency is 33 MHz. 5. Turn off the power and return the P2 short pin to the 1—2 position.

2. Level and Gain Adjustment (analog output computer)

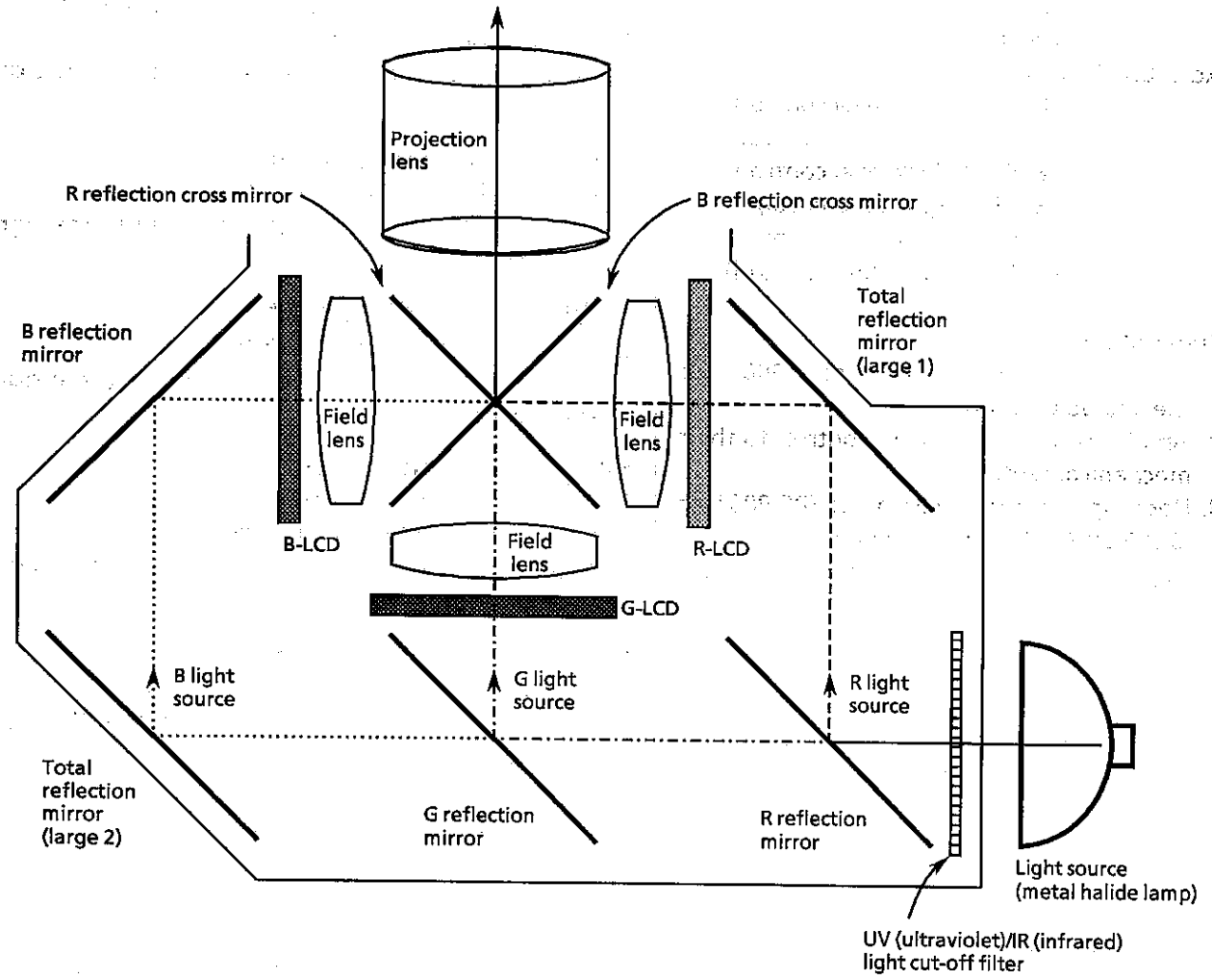
Adjusting Conditions	Adjusting Procedures
Test Points: TP5 (red, brightness) TP2 (green) TP4 (blue) Adjusting Points: R8153 (R black level control) R8152 (G black level control) R8151 (B black level control) R8156 (Brightness control) R8155 (G White level control) R8154 (B White level control) Preparations 1. Set the analog/digital selector (S8001) to the analog position. 2. Set all the above adjusting controls to their mechanical center. 3. Hook up a personal computer (PC-9801 or IBM-PC (VGA)) to the PC connector. 4. Adjust the oscilloscope's time base to 5 μs. 	**● R black level adjustment** 1. Run the computer to dispaly a black-only screen. 2. Connect the oscilloscope to TP5. 3. Adjust R8153 (R black level control) until the signal starts to appear. **● G black level adjustment** 4. Connect the oscilloscope to TP2. 5. Adjust R8152 (G black level control) until the signal starts to appear. **● B black level adjustment** 6. Connect the oscilloscope to TP4. 7. Adjust R8151 (B black level control) until the signal starts to appear. **● Brightness adjustment** 8. Dispaly a white-only screen. 9. Connect the oscilloscope to TP5. 10. Adjust R8156 (brightness control) until the signal starts to appear. **● G White level adjustment** 11. Connect the oscilloscope to TP2. 12. Adjust R8155 (G White level control) until the signal starts to appear. **● B White level adjustment** 13. Connect the oscilloscope to TP4. 14. Adjust R8154 (B White level control) until the signal starts to appear. Checking Display the gray scale (16 tones) appear on the screen. Be sure that the image's tone is as specified.

3. Phase Adjustment

Adjusting Conditions	Adjusting Procedures
Adjusting Points: Phase control keys (PHASE< and PHASE>) Specification: Image to be sharpest	1. Run the personal computer to display the H character (White 2000) appear on the screen. 2. Press the phase control keys (PHASE< and PHASE>) until the sharpest image is achieved.

OPTICAL UNIT OUTLINE

Optical Adjustment Basics



1. Adjusting the optical axis

R: Light source → R reflection mirror → Total reflection mirror (large 1) → R reflection cross mirror → Projection lens

G: Light source → G reflection mirror → Projection lens

B: Light source → Total reflection mirror (lage 2) → B reflection mirror → B reflection cross mirror → Projection lens

Adjust the angles of the mirrors which reflect the light sources.

For this adjustment, use the G light source as the reference.

Make sure that the R and B light beams come to the projection lens in alignment with the G light beam.

2. Aligning the LCD panels

R: R LCD panel → Field lens → R reflection cross mirror → Projection lens

G: G LCD panel → Field lens → Projection lens

B: B LCD panel → Field lens → B reflection cross mirror → Projection lens

Adjust all the LCD panels one by one in order to improve the view angle and focusing.

Note that the R reflection cross mirror, B reflection cross mirror and projection lens need no adjustment.

■ Cleaning the lenses and mirrors

1. Lens cleaner

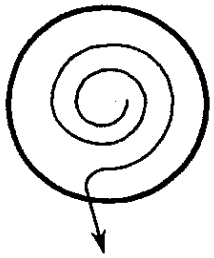
※ Cleaning agent

Change the mixture ratio of alcohol and ether depending on the ambient temperature. The best mixture ratio comes when the liquid evaporates from the lens surface immediately after you rub it. The more ether is used, the quicker the liquid evaporates.

※ Method

Use well-washed bleached cotton or cleaning paper available on the market. Hold the lens, sandwiched in the bleached cotton dampened with the liquid, with the thumb and the index finger. Turn the lens and wipe the surface clean from the center outward to collect dust.

Be careful not to rub the coated surface too strong.



2. Mirror cleaning

Never rub the mirrors strongly because their surfaces are deposit-coated. Use some alcohol first and wipe with dry cloth if the surface is slightly dirty.

3. Precaution

The picture quality is greatly affected if both sides of the LCD unit and the LCD side of the condenser lenses are dirty. Pay enough attention to these surfaces.

■ Adjustment after Replacement of the LCD Panels

Adjusting the LCD polarizer plate

1. Preparations

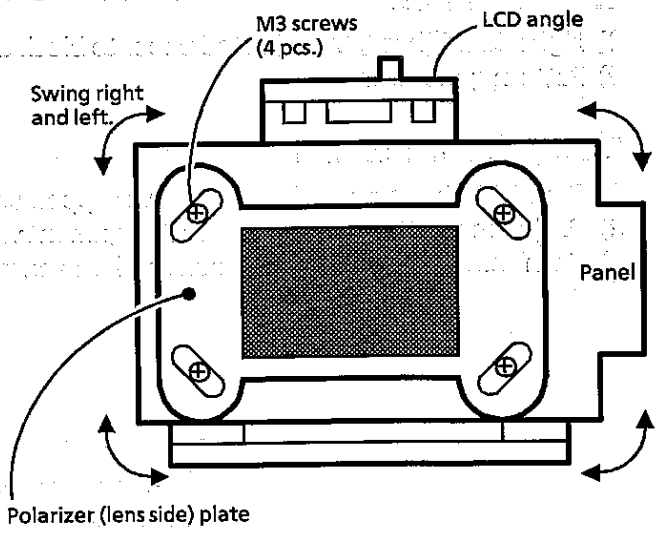
1) Pattern generator.
2) Flat light source (LCD TV set's back light, for example)

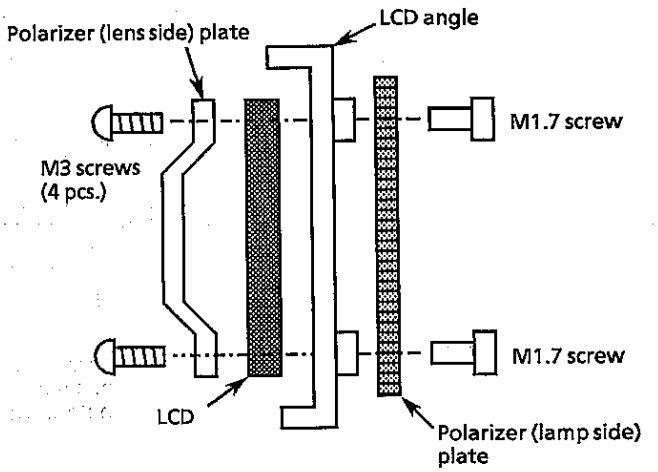
2. Adjustment procedure

1) Turn on the set. Feed the black pattern signal from the pattern generator to the video input terminal.
2) Loosen the four M3 screws of the polarizer (lens side) plate (at the projection lens side).

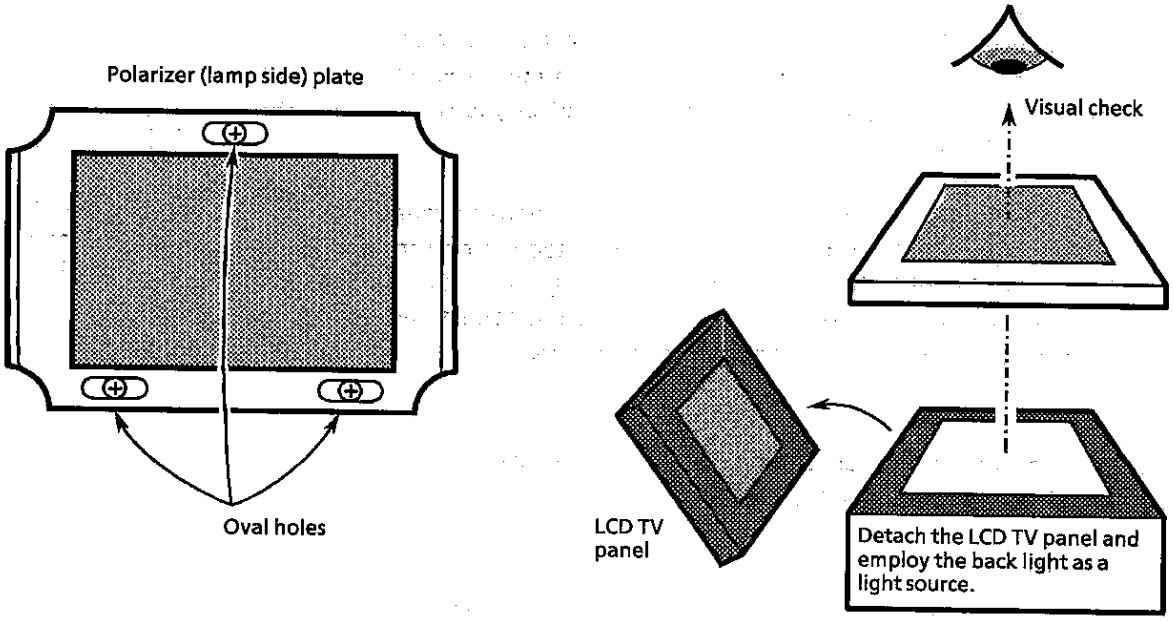
* Let the source light through, as shown below, and look at the polarizer (lens side) plate to find out the position where the black looks blackest.

3) Keep the source light through and swing the polarizer (lens side) plate right and left. Stop the plate where it looks blackest.
4) Tighten up the four M3 screws (8 ± 1kg–cm).





5) Do not touch the polarizer (lamp side) plate except for the purpose of replacement. If it is to be replaced, adjust and tighten up the fixing screws at the center of each oval hole (1.6—1.8 kg).


Polarizer (lamp side) plate
Oval holes
Visual check
LCD TV panel
Detach the LCD TV panel and employ the back light as a light source.

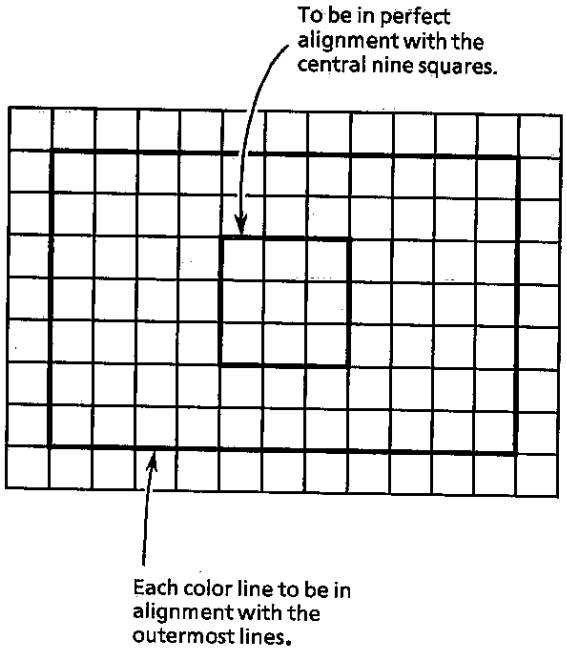
X and Y adjustment

1. Preparations

1) Light shield (hard, thick coated paper to block the light).
2) Pattern generator.

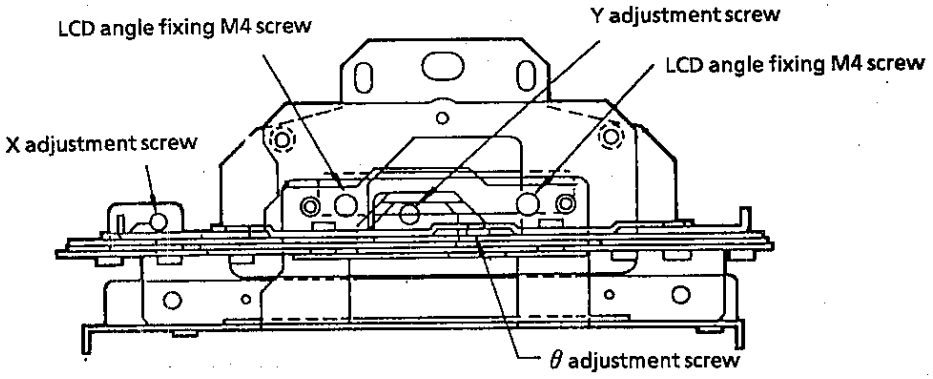
2. Adjustment criteria

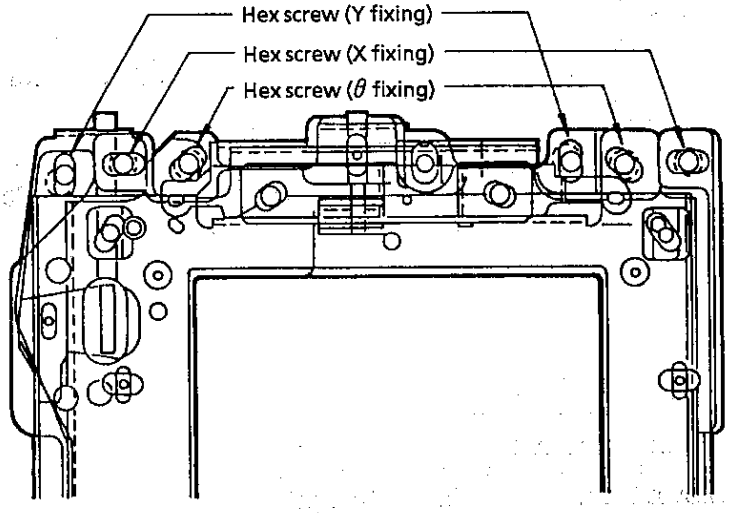
1) R and B light beams to be exactly overlapped on the G light beam.
2) Projection pattern to be in perfect alignment with the innermost nine squares.
3) Each color line to be in alignment with the outermost lines.



3. Adjustment procedure

1) Loosen the eight hex screws each (total 16 pcs.) from the R and B LCD panels.
2) Feed the grid pattern signal from the pattern generator.





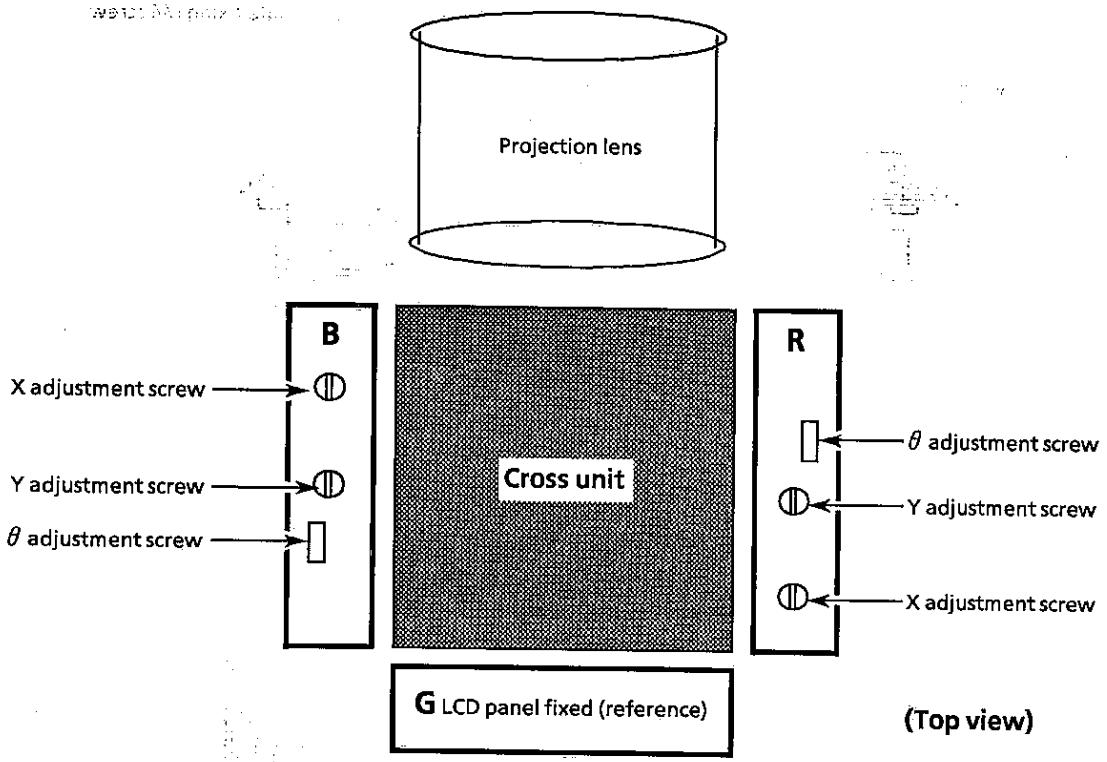
3) a: **"R" adjustment**

Put the light shield in front of the B LCD panel (to cut off the B light source). Overlap the R square on the G square. Make the X adjustment for the horizontal direction and the Y adjustment for the vertical direction.

* For the tilt, make the θ adjustment.

b: **"B" adjustment**

Put the light shield in front of the R LCD panel (to cut off the R light source). Overlap the B square on the G square. Make the X adjustment for the horizontal direction and the Y adjustment for the vertical direction.

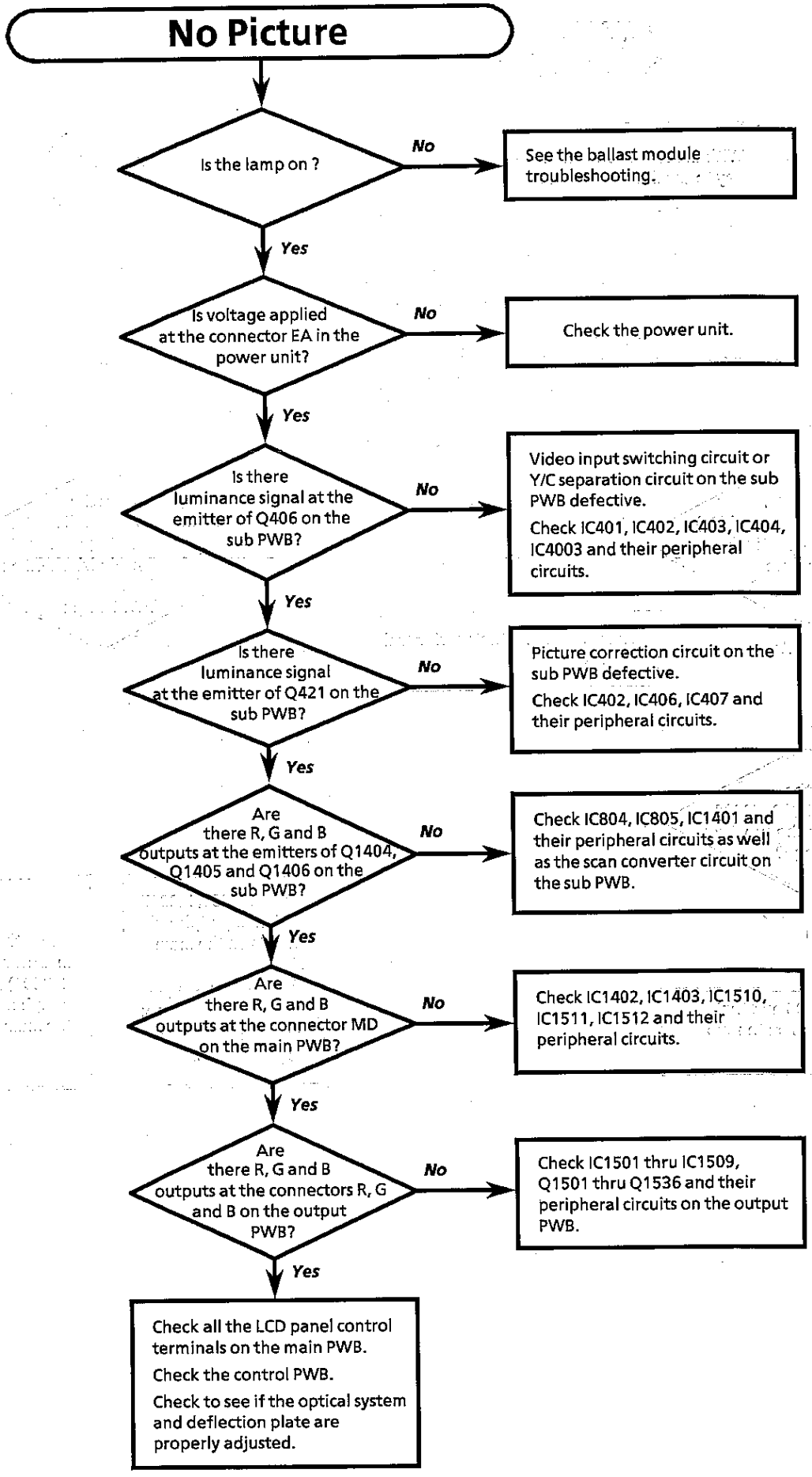


Screw turn	Counterclockwise	clockwise
X	Moves to left	Moves to right
Y	Moves upward	Moves downward
θ*	Right side up	Left side up

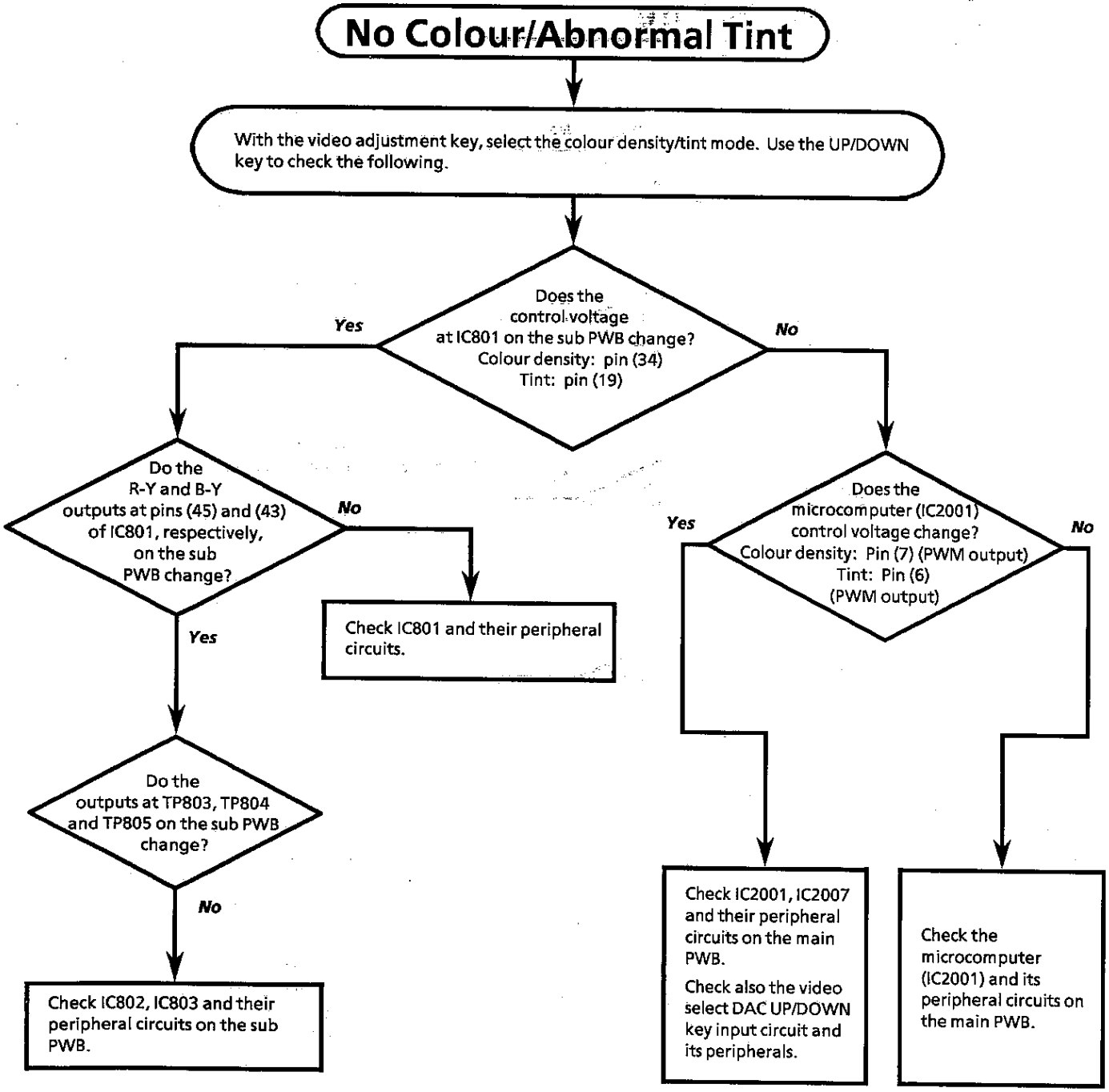
* (When the adjustment rivet is at the top in the oval hole.)

4) Tighten up the 16 hex screws (13 ± 1 kg-cm).

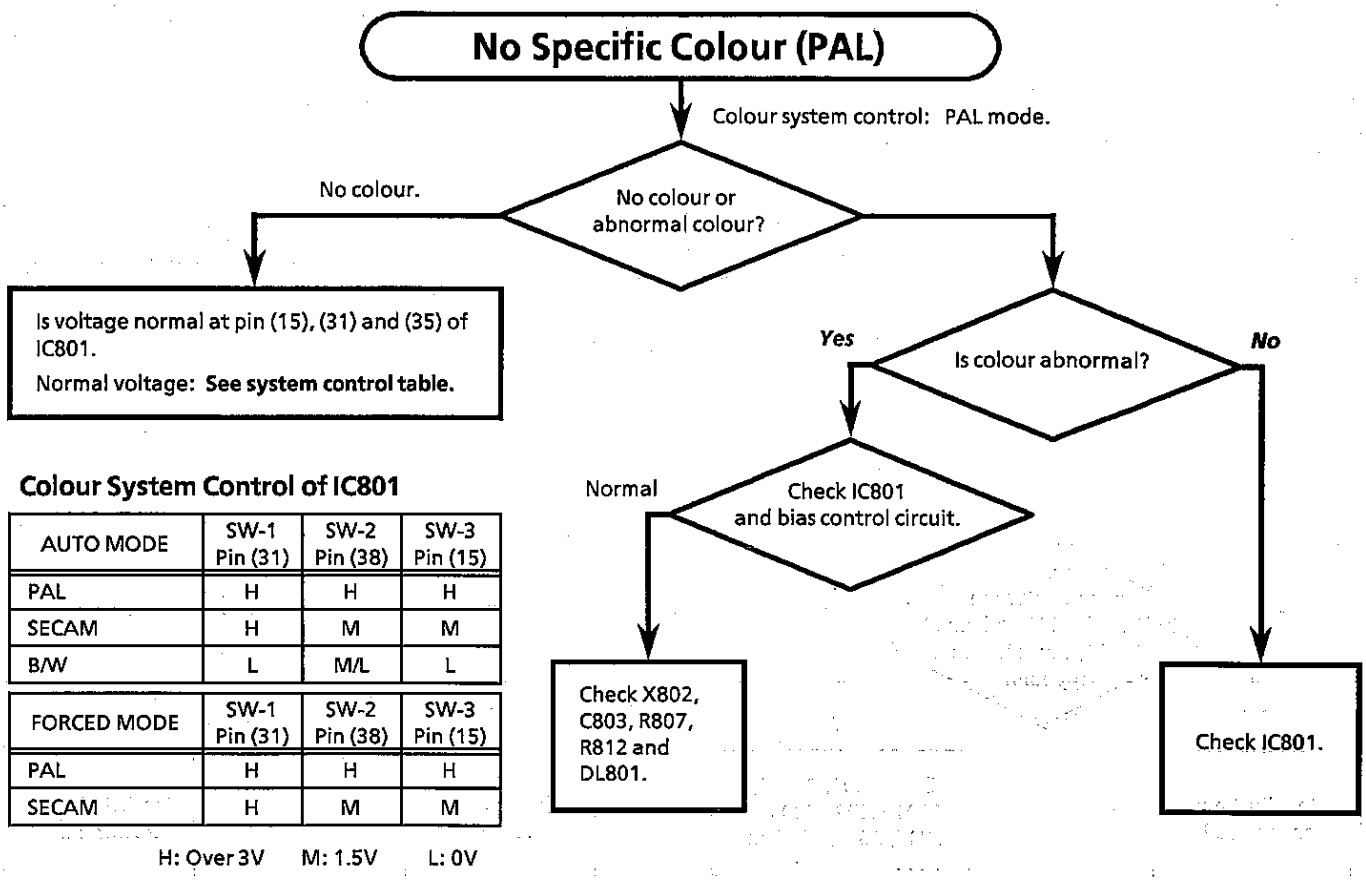
TROUBLE SHOOTING


No Picture
Is the lamp on ?
No
See the ballast module troubleshooting.
Yes
Is voltage applied at the connector EA in the power unit?
No
Check the power unit.
Yes
Is there luminance signal at the emitter of Q406 on the sub PWB?
No
Video input switching circuit or Y/C separation circuit on the sub PWB defective.
Check IC401, IC402, IC403, IC404, IC4003 and their peripheral circuits.
Yes
Is there luminance signal at the emitter of Q421 on the sub PWB?
No
Picture correction circuit on the sub PWB defective.
Check IC402, IC406, IC407 and their peripheral circuits.
Yes
Are there R, G and B outputs at the emitters of Q1404, Q1405 and Q1406 on the sub PWB?
No
Check IC804, IC805, IC1401 and their peripheral circuits as well as the scan converter circuit on the sub PWB.
Yes
Are there R, G and B outputs at the connector MD on the main PWB?
No
Check IC1402, IC1403, IC1510, IC1511, IC1512 and their peripheral circuits.
Yes
Are there R, G and B outputs at the connectors R, G and B on the output PWB?
No
Check IC1501 thru IC1509, Q1501 thru Q1536 and their peripheral circuits on the output PWB.
Yes
Check all the LCD panel control terminals on the main PWB.
Check the control PWB.
Check to see if the optical system and deflection plate are properly adjusted.

TROUBLE SHOOTING TABLE (Continued)


No Colour/Abnormal Tint
With the video adjustment key, select the colour density/tint mode. Use the UP/DOWN key to check the following.
Does the control voltage at IC801 on the sub PWB change? Colour density: pin (34) Tint: pin (19)
Yes
No
Do the R-Y and B-Y outputs at pins (45) and (43) of IC801, respectively, on the sub PWB change?
No
Yes
Check IC801 and their peripheral circuits.
Do the outputs at TP803, TP804 and TP805 on the sub PWB change?
No
Check IC802, IC803 and their peripheral circuits on the sub PWB.
Does the microcomputer (IC2001) control voltage change? Colour density: Pin (7) (PWM output) Tint: Pin (6) (PWM output)
Yes
No
Check IC2001, IC2007 and their peripheral circuits on the main PWB.
Check also the video select DAC UP/DOWN key input circuit and its peripherals.
Check the microcomputer (IC2001) and its peripheral circuits on the main PWB.

TROUBLE SHOOTING TABLE (Continued)


No Specific Colour (PAL)
Colour system control: PAL mode.
No colour or abnormal colour?
No colour.
Is voltage normal at pin (15), (31) and (35) of IC801.
Normal voltage: See system control table.
Yes
Is colour abnormal?
No
Normal
Check IC801 and bias control circuit.
Check X802, C803, R807, R812 and DL801.
Check IC801.

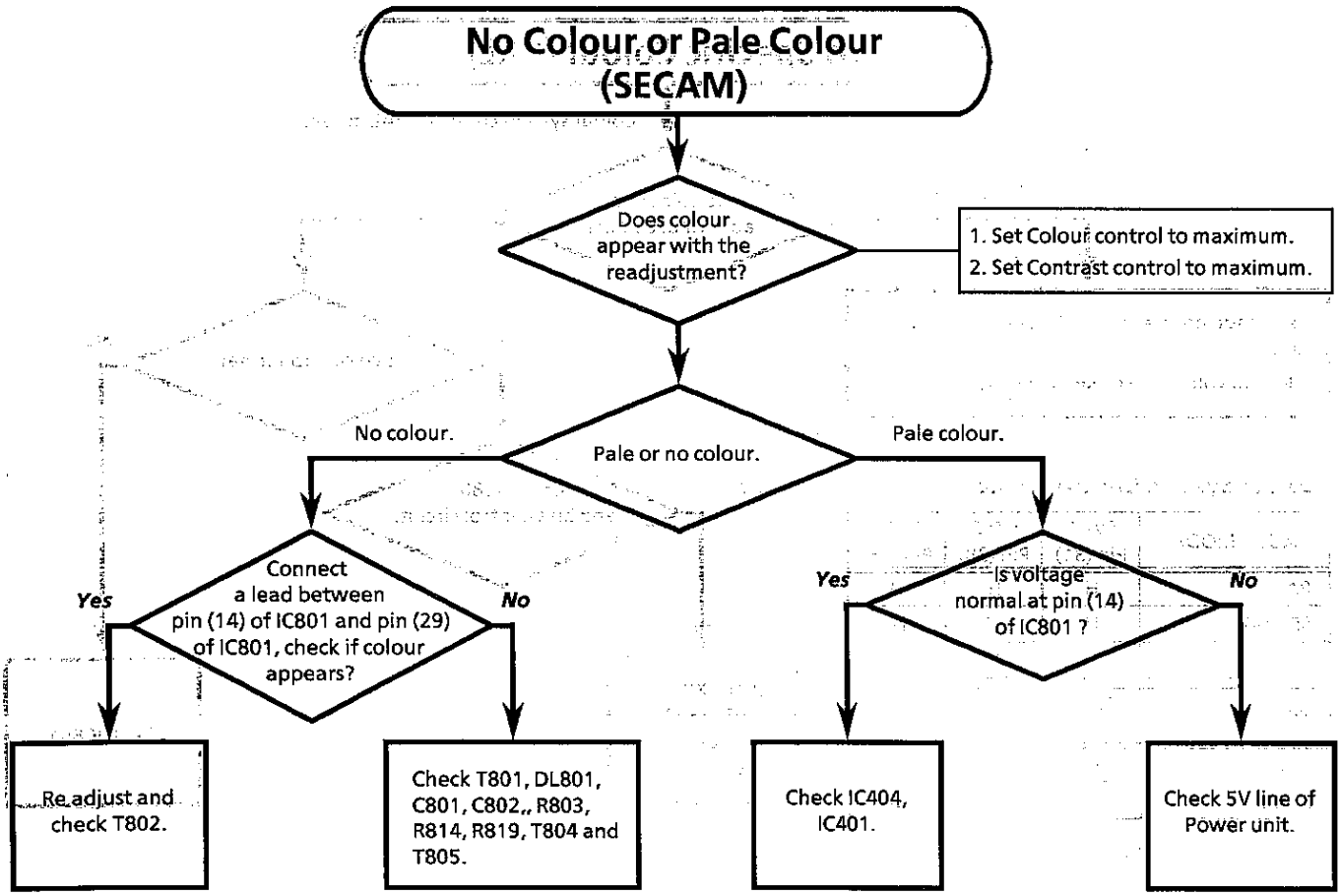
Colour System Control of IC801

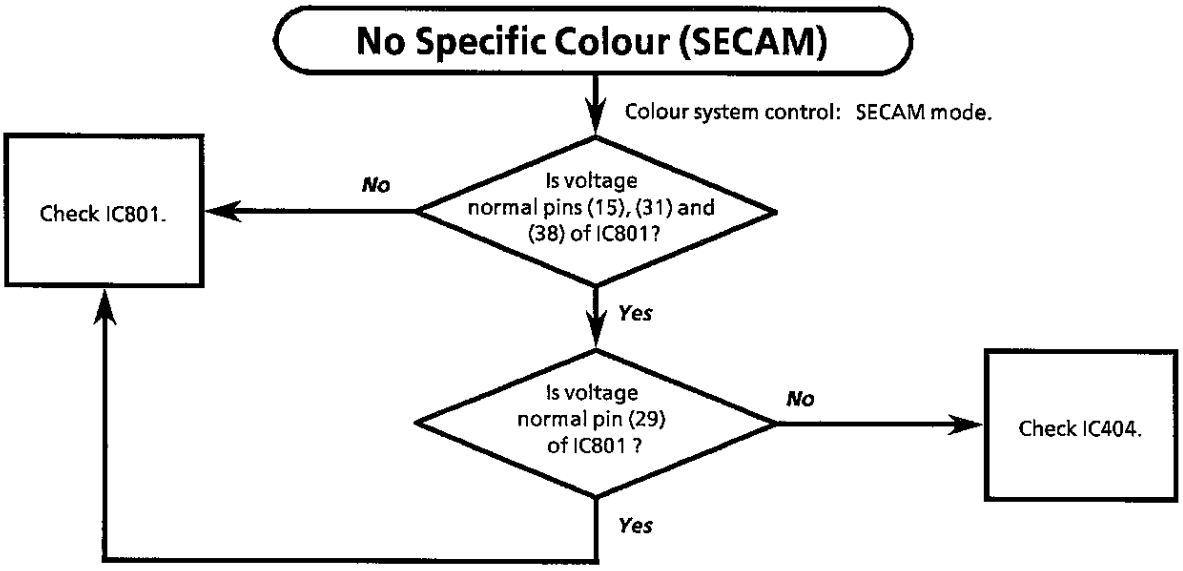
AUTO MODE	SW-1 Pin (31)	SW-2 Pin (38)	SW-3 Pin (15)
PAL	H	H	H
SECAM	H	M	M
B/W	L	M/L	L

FORCED MODE	SW-1 Pin (31)	SW-2 Pin (38)	SW-3 Pin (15)
PAL	H	H	H
SECAM	H	M	M

H: Over 3V M: 1.5V L: 0V

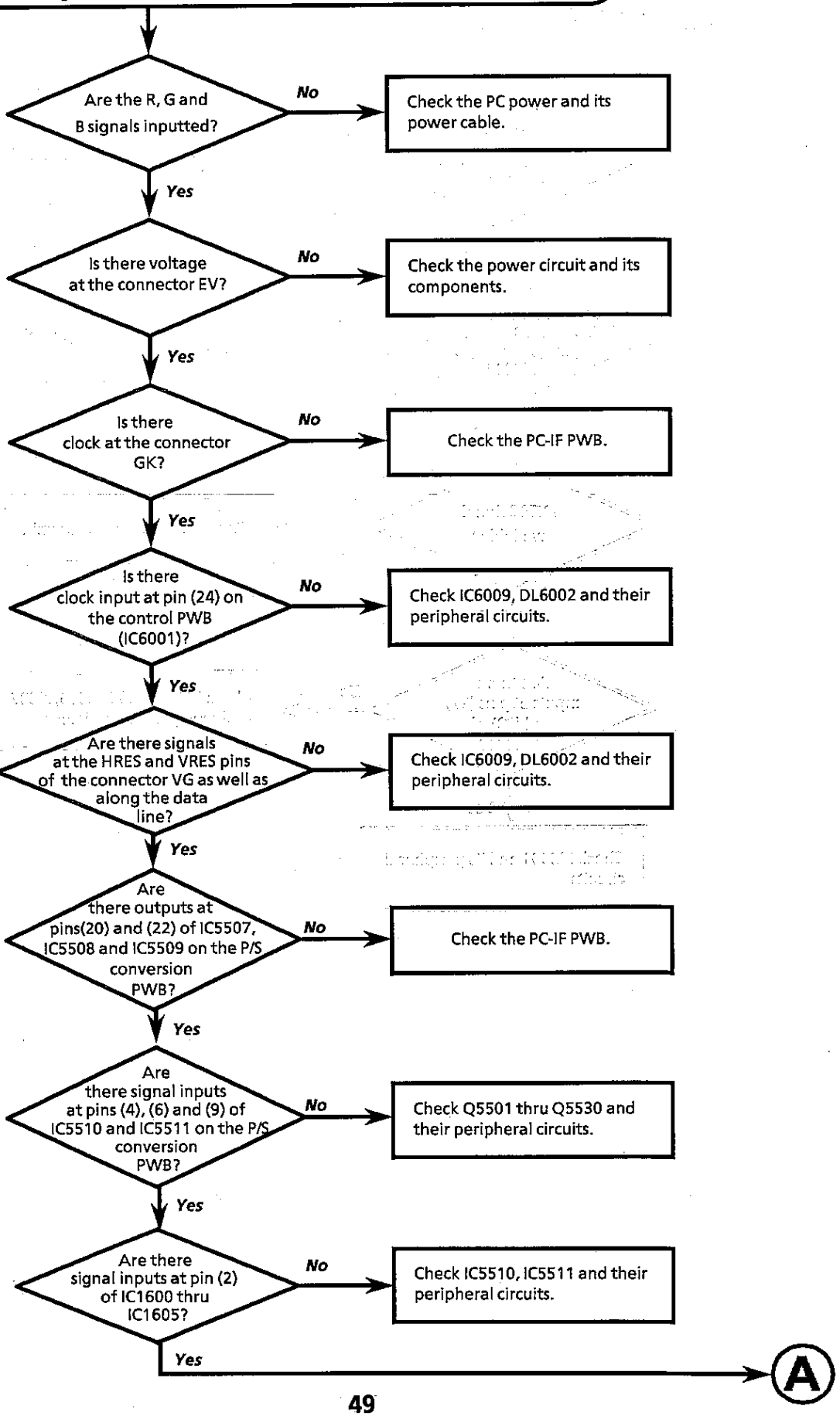
TROUBLE SHOOTING TABLE (Continued)


No Colour or Pale Colour (SECAM)
Does colour appear with the readjustment?
1. Set Colour control to maximum.
2. Set Contrast control to maximum.
Pale or no colour.
No colour.
Pale colour.
Connect a lead between pin (14) of IC801 and pin (29) of IC801, check if colour appears?
Yes
No
Re-adjust and check T802.
Check T801, DL801, C801, C802,, R803, R814, R819, T804 and T805.
Is voltage normal at pin (14) of IC801 ?
Yes
No
Check IC404, IC401.
Check 5V line of Power unit.

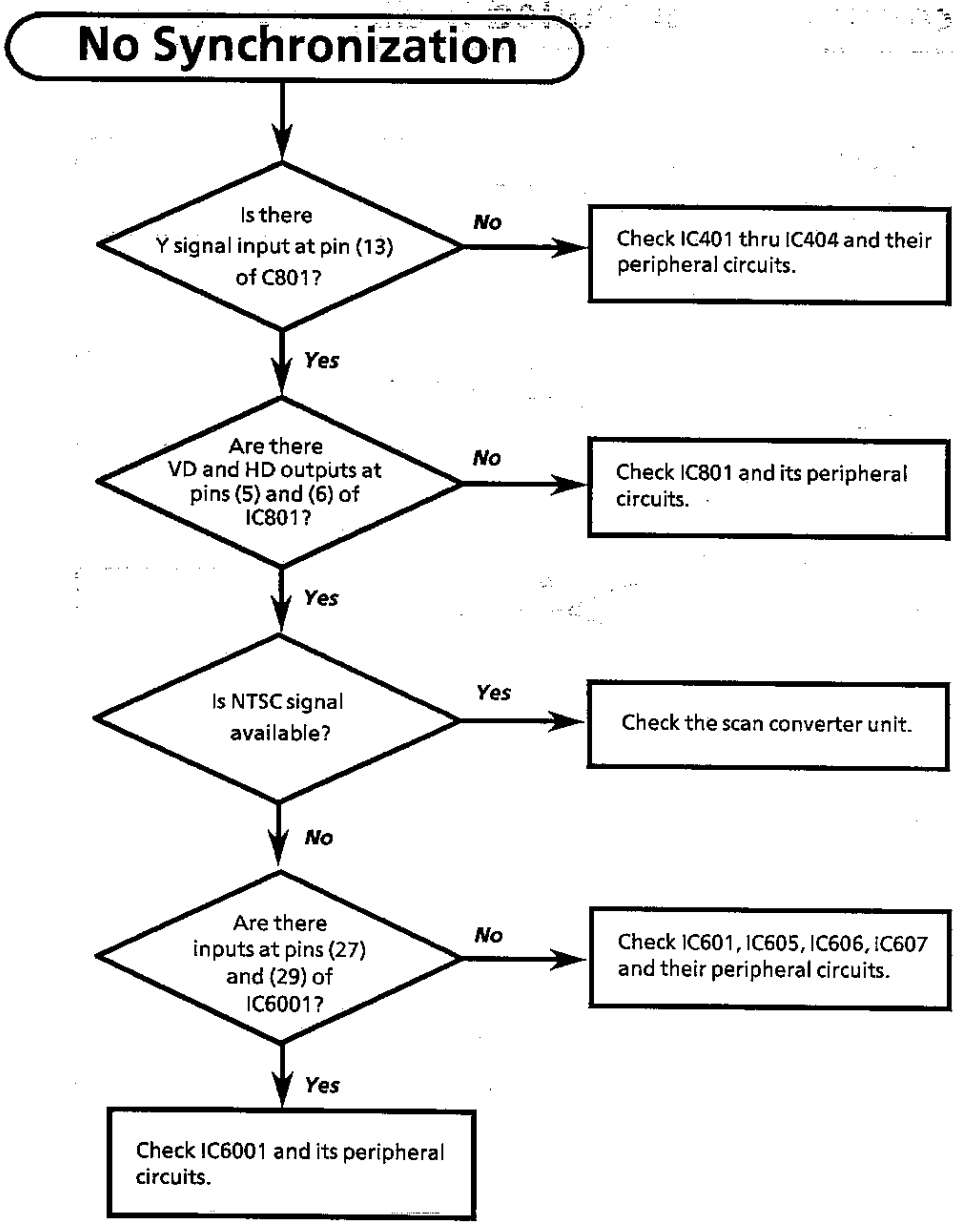


TROUBLE SHOOTING TABLE (Continued)

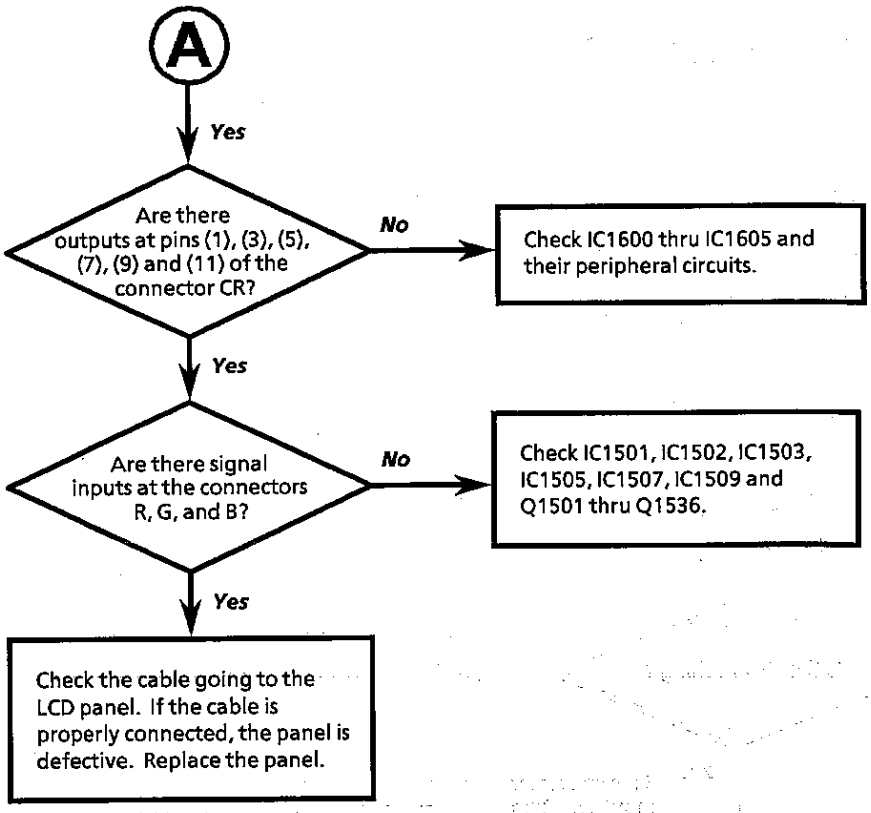
No computer-Controlled (RGB) Picture


Are the R, G and B signals inputted?
No
Check the PC power and its power cable.
Yes
Is there voltage at the connector EV?
No
Check the power circuit and its components.
Yes
Is there clock at the connector GK?
No
Check the PC-IF PWB.
Yes
Is there clock input at pin (24) on the control PWB (IC6001)?
No
Check IC6009, DL6002 and their peripheral circuits.
Yes
Are there signals at the HRES and VRES pins of the connector VG as well as along the data line?
No
Check IC6009, DL6002 and their peripheral circuits.
Yes
Are there outputs at pins(20) and (22) of IC5507, IC5508 and IC5509 on the P/S conversion PWB?
No
Check the PC-IF PWB.
Yes
Are there signal inputs at pins (4), (6) and (9) of IC5510 and IC5511 on the P/S conversion PWB?
No
Check Q5501 thru Q5530 and their peripheral circuits.
Yes
Are there signal inputs at pin (2) of IC1600 thru IC1605?
No
Check IC5510, IC5511 and their peripheral circuits.
Yes
A

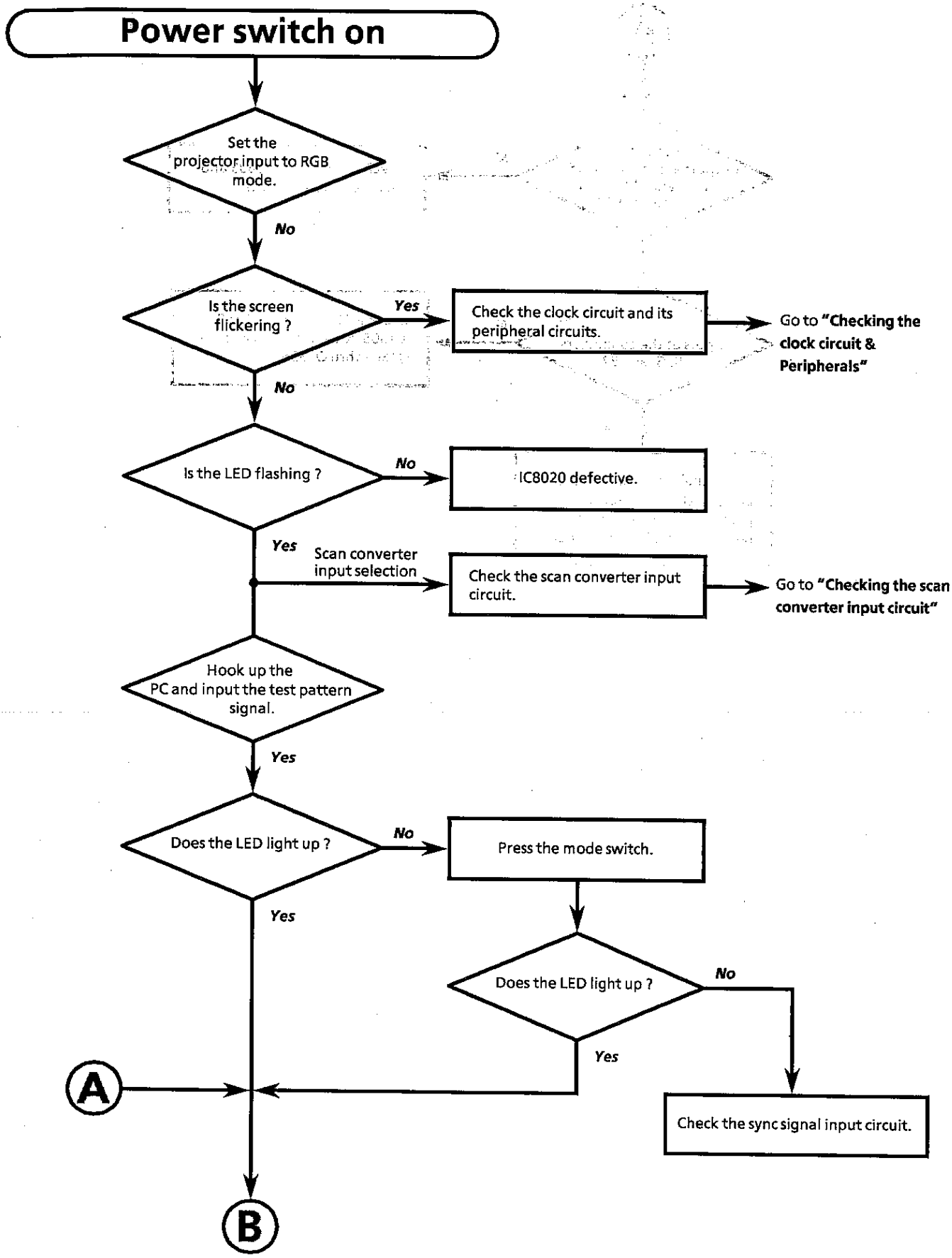
TROUBLE SHOOTING TABLE (Continued)


No Synchronization
Is there Y signal input at pin (13) of C801?
No
Check IC401 thru IC404 and their peripheral circuits.
Yes
Are there VD and HD outputs at pins (5) and (6) of IC801?
No
Check IC801 and its peripheral circuits.
Yes
Is NTSC signal available?
Yes
Check the scan converter unit.
No
Are there inputs at pins (27) and (29) of IC6001?
No
Check IC601, IC605, IC606, IC607 and their peripheral circuits.
Yes
Check IC6001 and its peripheral circuits.

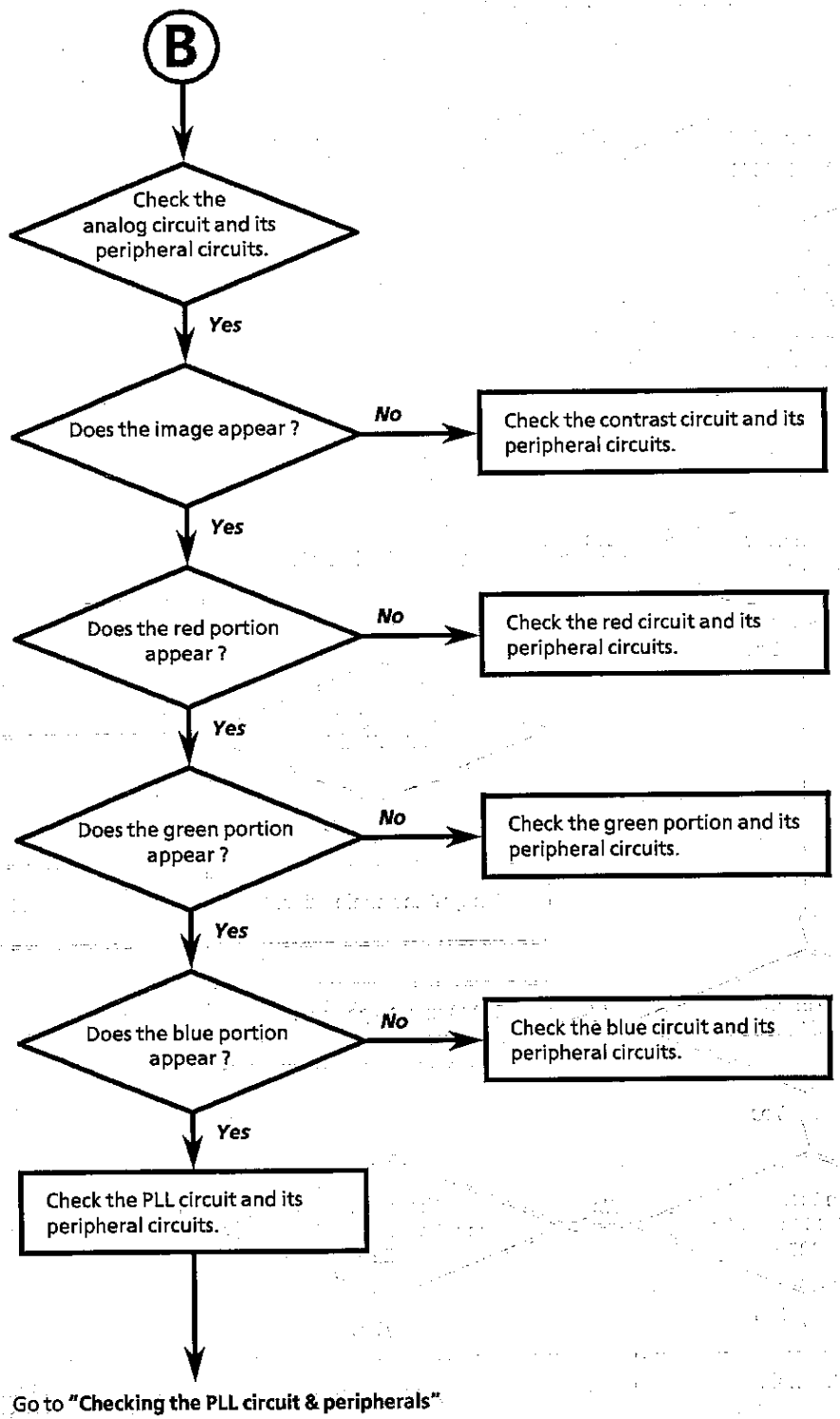
TROUBLE SHOOTING TABLE (Continued)


A
Yes
Are there outputs at pins (1), (3), (5), (7), (9) and (11) of the connector CR?
No
Check IC1600 thru IC1605 and their peripheral circuits.
Yes
Are there signal inputs at the connectors R, G, and B?
No
Check IC1501, IC1502, IC1503, IC1505, IC1507, IC1509 and Q1501 thru Q1536.
Yes
Check the cable going to the LCD panel. If the cable is properly connected, the panel is defective. Replace the panel.

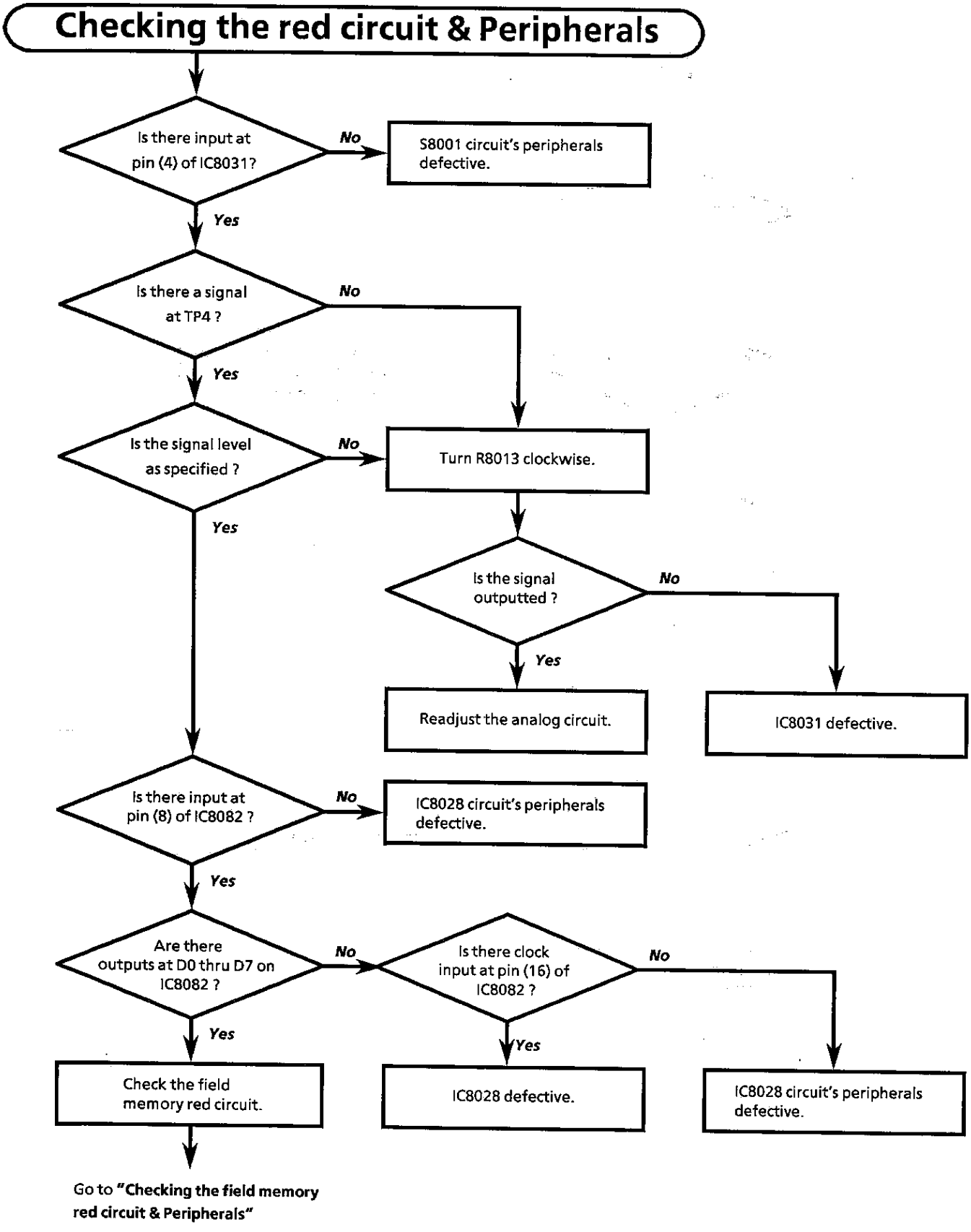
PC-IF PWB TROUBLE SHOOTING



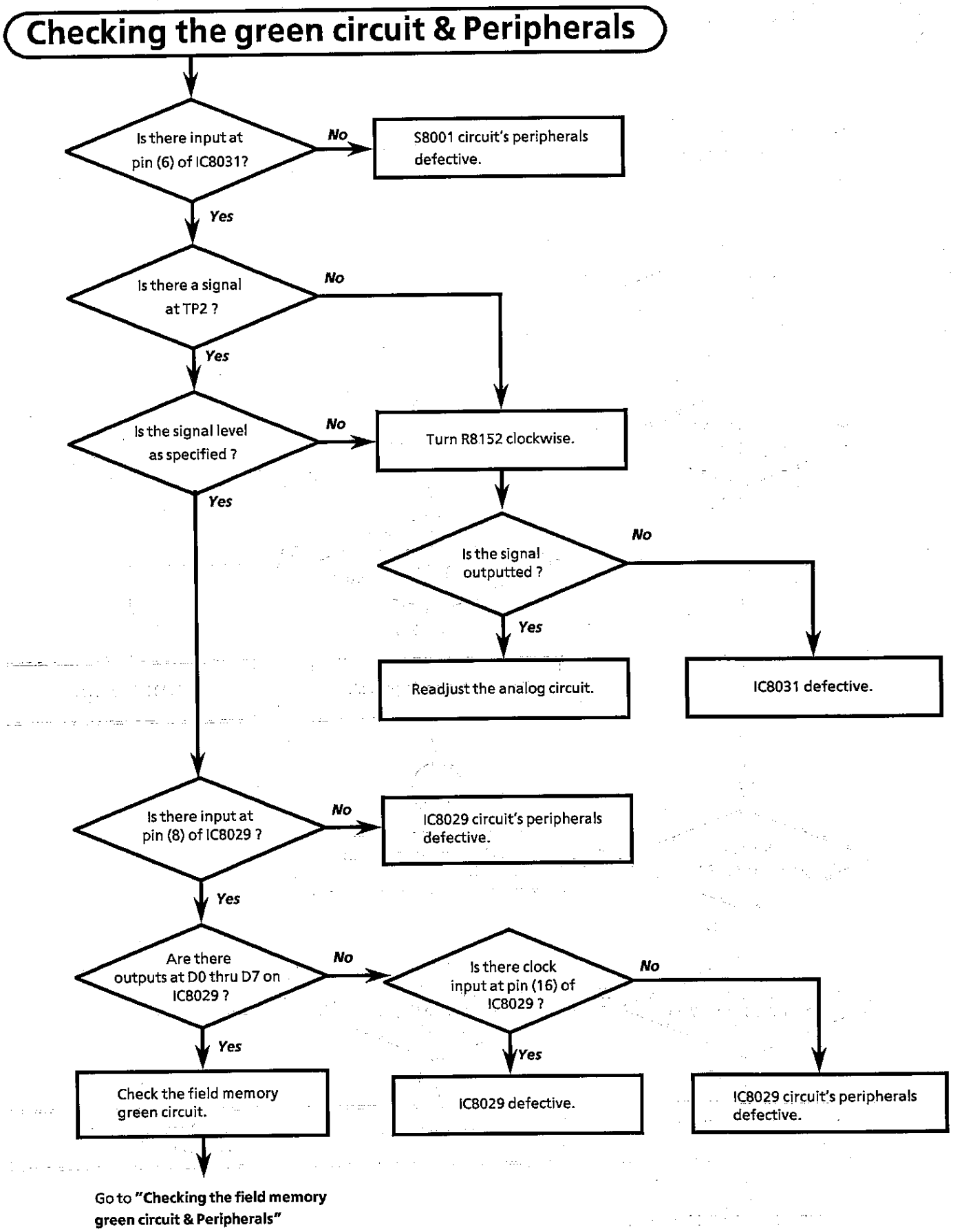
PC-IF PWB TROUBLE SHOOTING (Continued)


B
Check the analog circuit and its peripheral circuits.
Yes
Does the image appear ?
No
Check the contrast circuit and its peripheral circuits.
Yes
Does the red portion appear ?
No
Check the red circuit and its peripheral circuits.
Yes
Does the green portion appear ?
No
Check the green portion and its peripheral circuits.
Yes
Does the blue portion appear ?
No
Check the blue circuit and its peripheral circuits.
Yes
Check the PLL circuit and its peripheral circuits.
Go to "Checking the PLL circuit & peripherals"

PC-IF PWB TROUBLE SHOOTING (Continued)

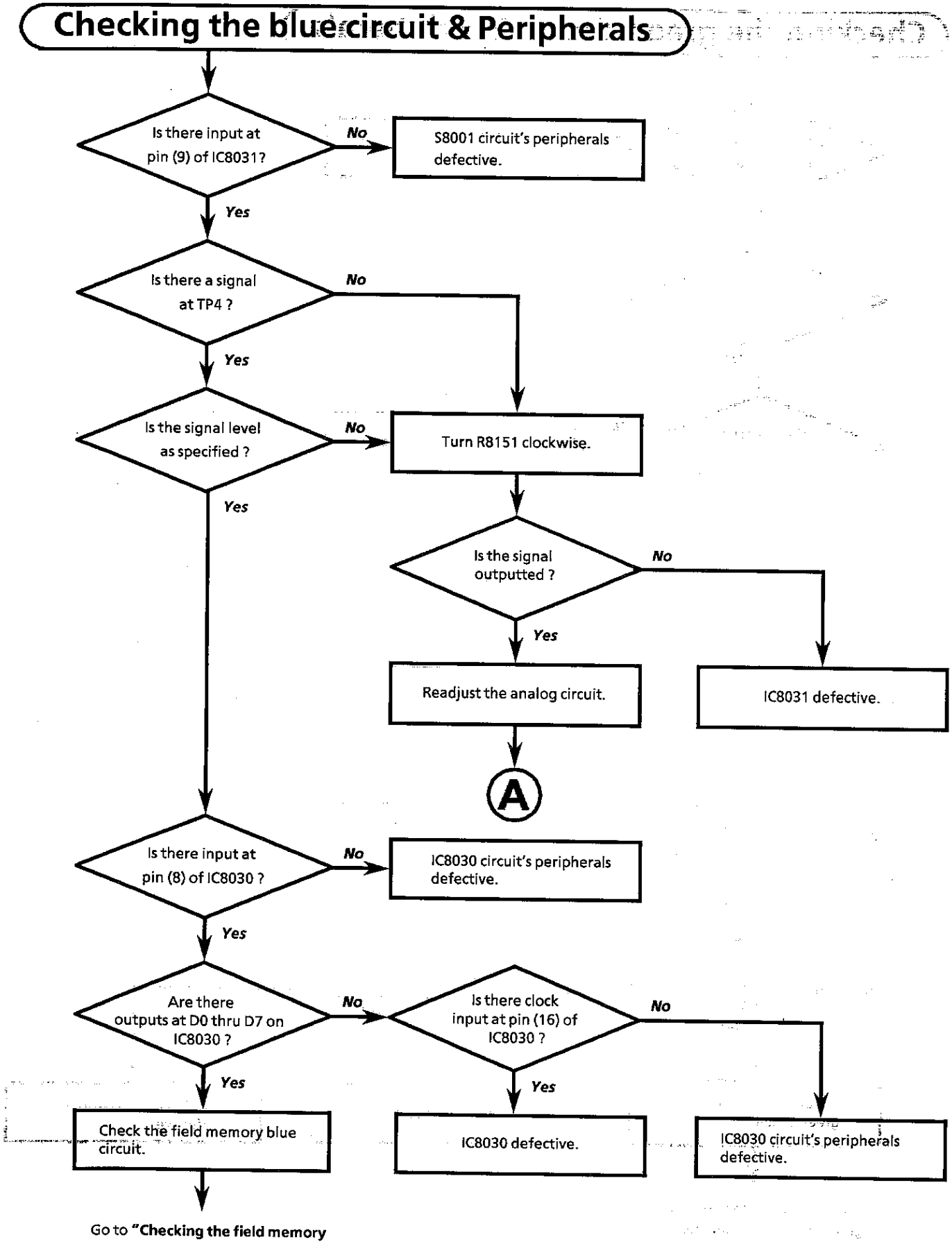


PC-IF PWB TROUBLE SHOOTING (Continued)



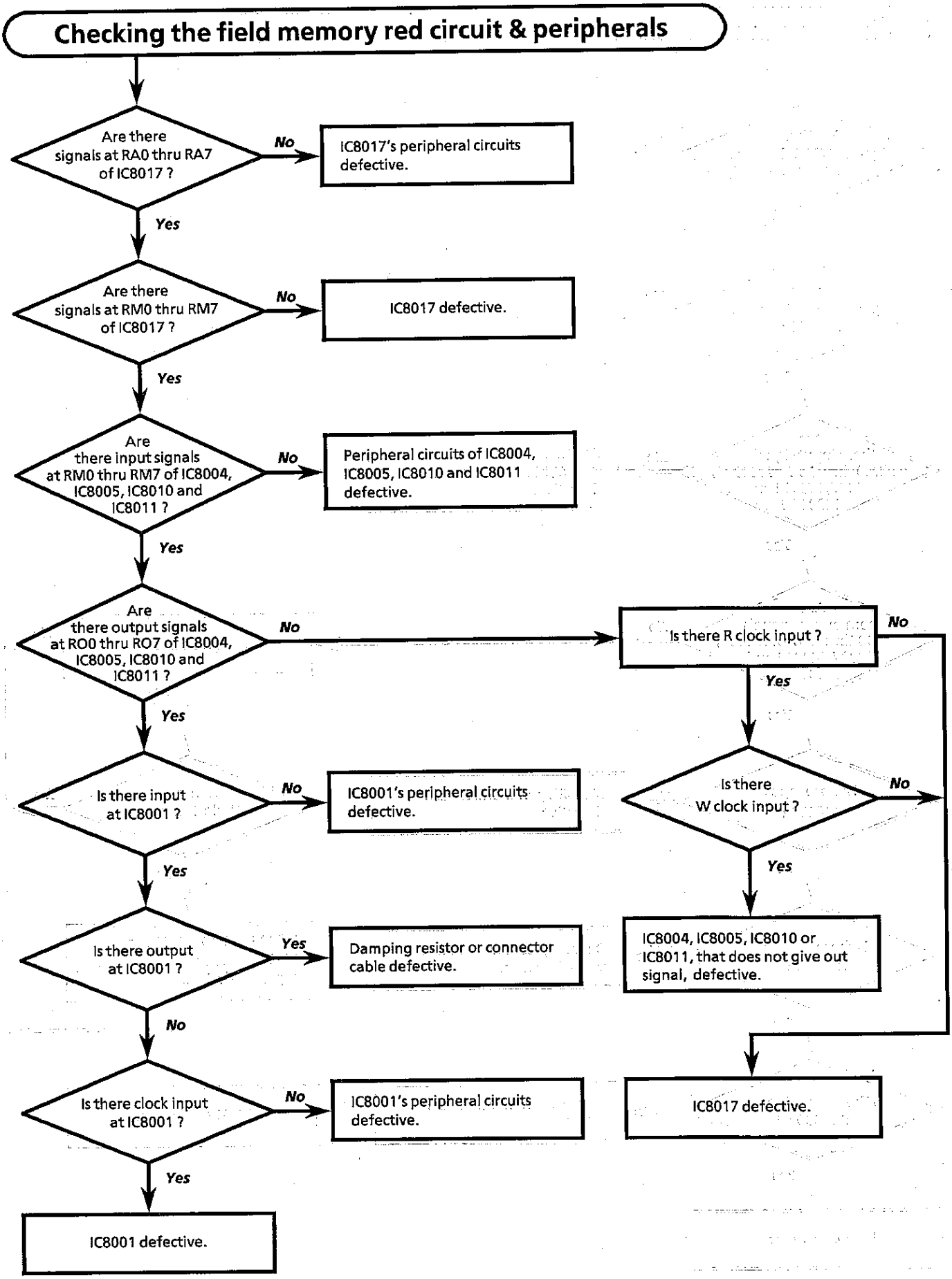
PC-IF PWB TROUBLE SHOOTING (Continued)

Checking the blue circuit & Peripherals



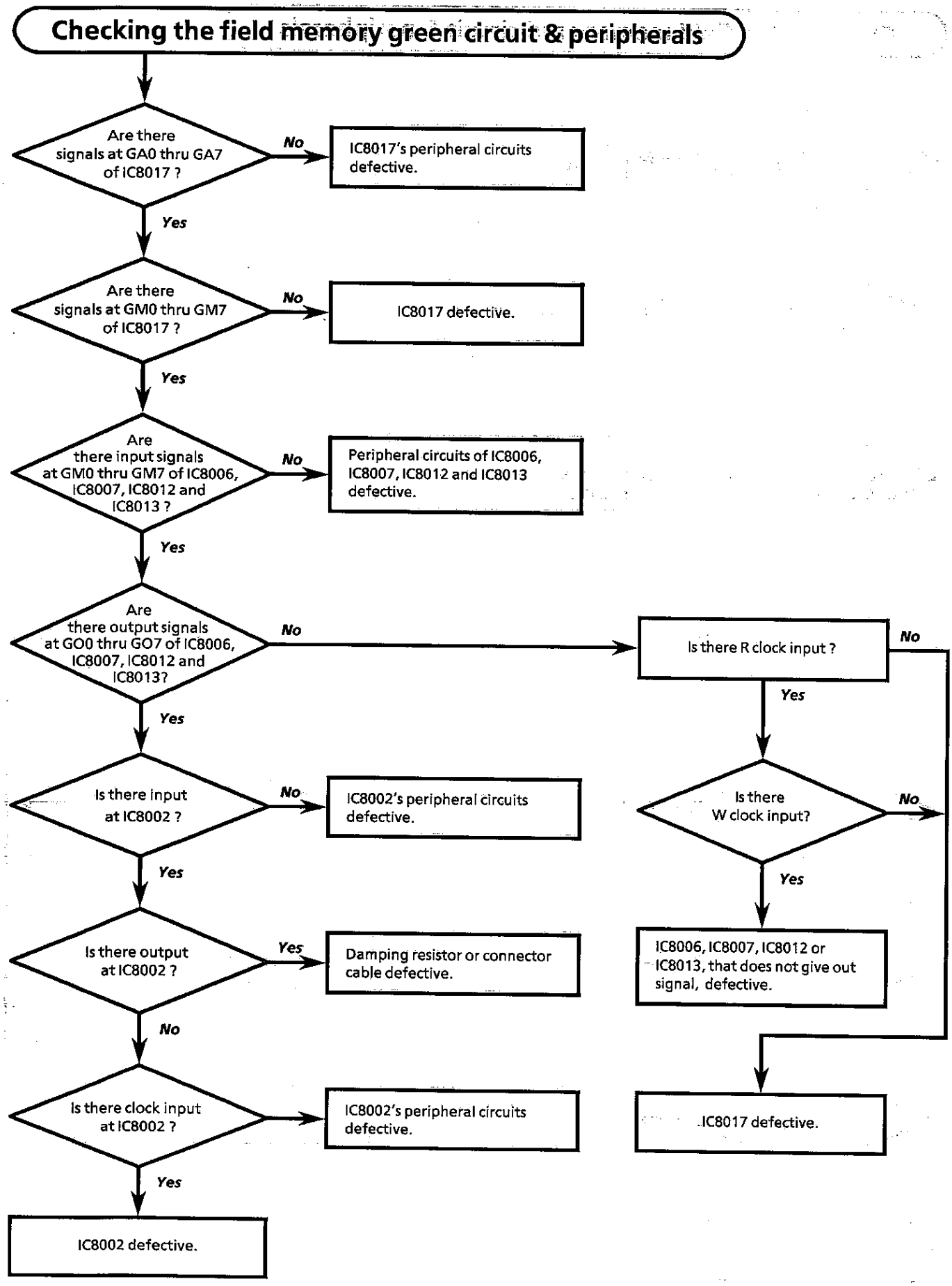
Go to **"Checking the field memory blue circuit & Peripherals"**

PC-IF PWB TROUBLE SHOOTING (Continued)

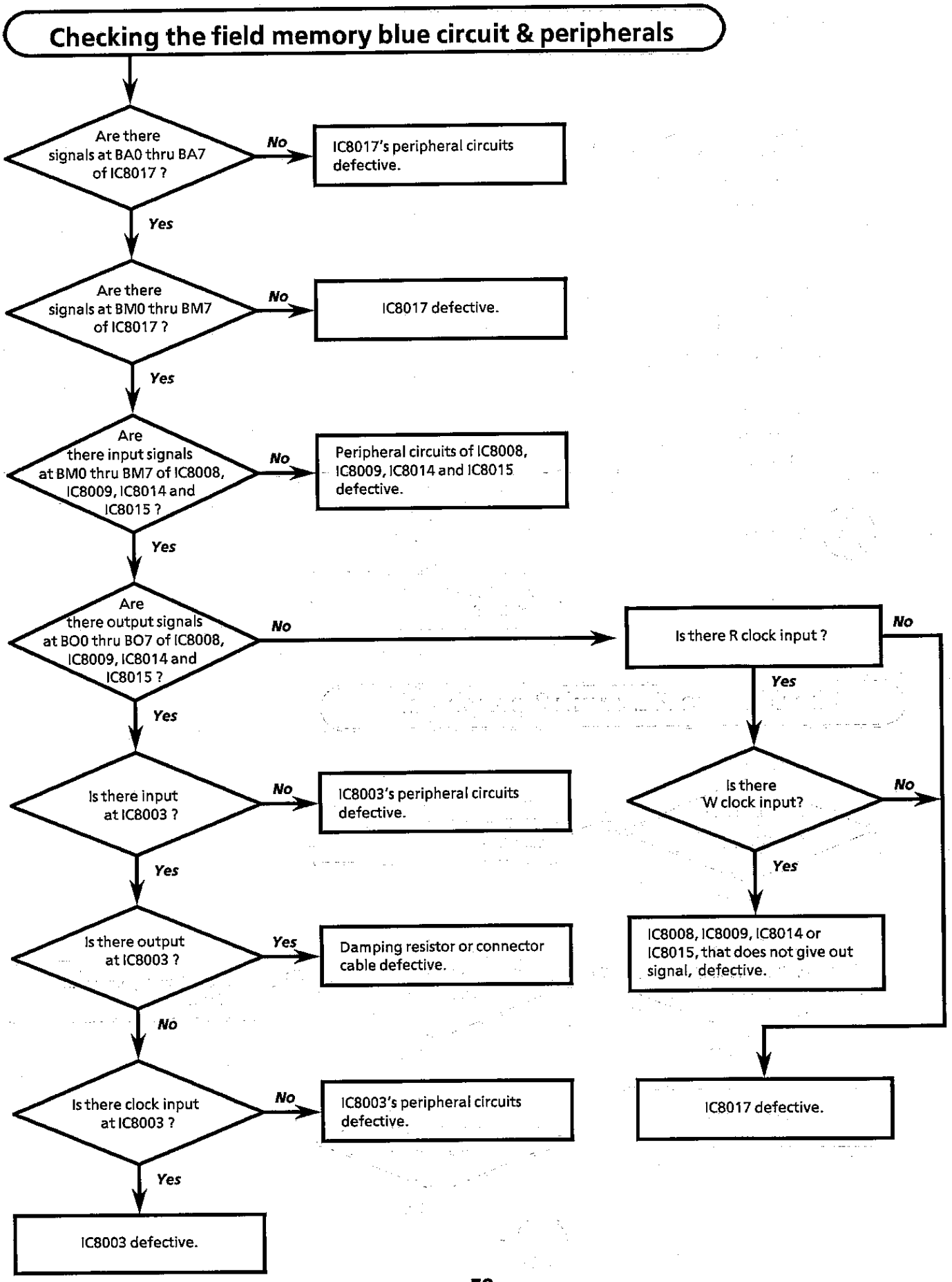

Checking the field memory red circuit & peripherals
Are there signals at RA0 thru RA7 of IC8017 ?
No
IC8017's peripheral circuits defective.
Yes
Are there signals at RM0 thru RM7 of IC8017 ?
No
IC8017 defective.
Yes
Are there input signals at RM0 thru RM7 of IC8004, IC8005, IC8010 and IC8011 ?
No
Peripheral circuits of IC8004, IC8005, IC8010 and IC8011 defective.
Yes
Are there output signals at RO0 thru RO7 of IC8004, IC8005, IC8010 and IC8011 ?
No
Is there R clock input ?
No
Yes
Yes
Is there input at IC8001 ?
No
IC8001's peripheral circuits defective.
Is there W clock input ?
No
Yes
Yes
Is there output at IC8001 ?
Yes
Damping resistor or connector cable defective.
IC8004, IC8005, IC8010 or IC8011, that does not give out signal, defective.
No
Is there clock input at IC8001 ?
No
IC8001's peripheral circuits defective.
IC8017 defective.
Yes
IC8001 defective.

PC-IF PWB TROUBLE SHOOTING (Continued)

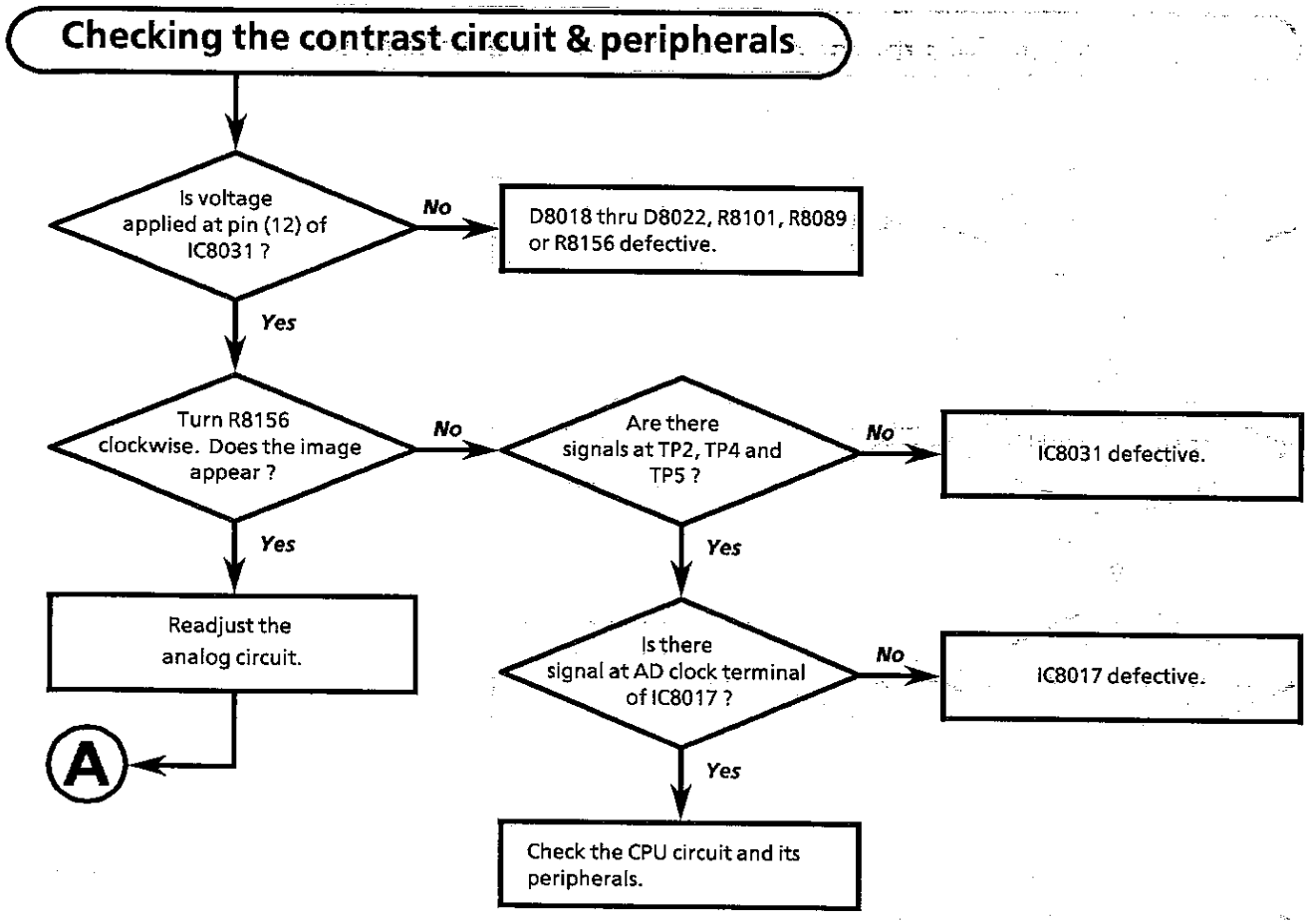
Checking the field memory green circuit & peripherals

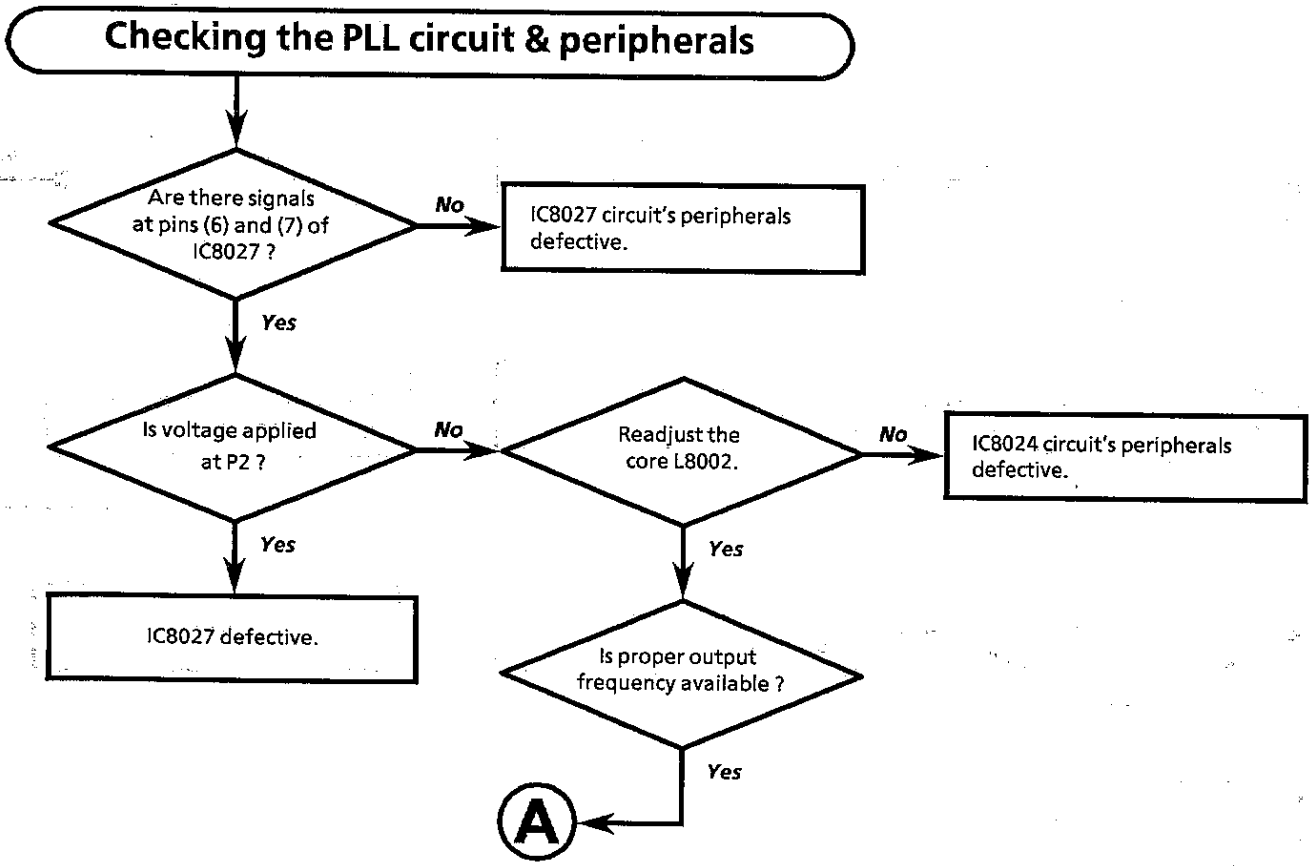

Are there signals at GA0 thru GA7 of IC8017 ?
No
IC8017's peripheral circuits defective.
Yes
Are there signals at GM0 thru GM7 of IC8017 ?
No
IC8017 defective.
Yes
Are there input signals at GM0 thru GM7 of IC8006, IC8007, IC8012 and IC8013 ?
No
Peripheral circuits of IC8006, IC8007, IC8012 and IC8013 defective.
Yes
Are there output signals at GO0 thru GO7 of IC8006, IC8007, IC8012 and IC8013?
No
Is there R clock input ?
No
Yes
Is there input at IC8002 ?
No
IC8002's peripheral circuits defective.
Is there W clock input?
No
Yes
Yes
Is there output at IC8002 ?
Yes
Damping resistor or connector cable defective.
IC8006, IC8007, IC8012 or IC8013, that does not give out signal, defective.
No
Is there clock input at IC8002 ?
IC8002's peripheral circuits defective.
IC8017 defective.
Yes
IC8002 defective.

PC-IF PWB TROUBLE SHOOTING (Continued)

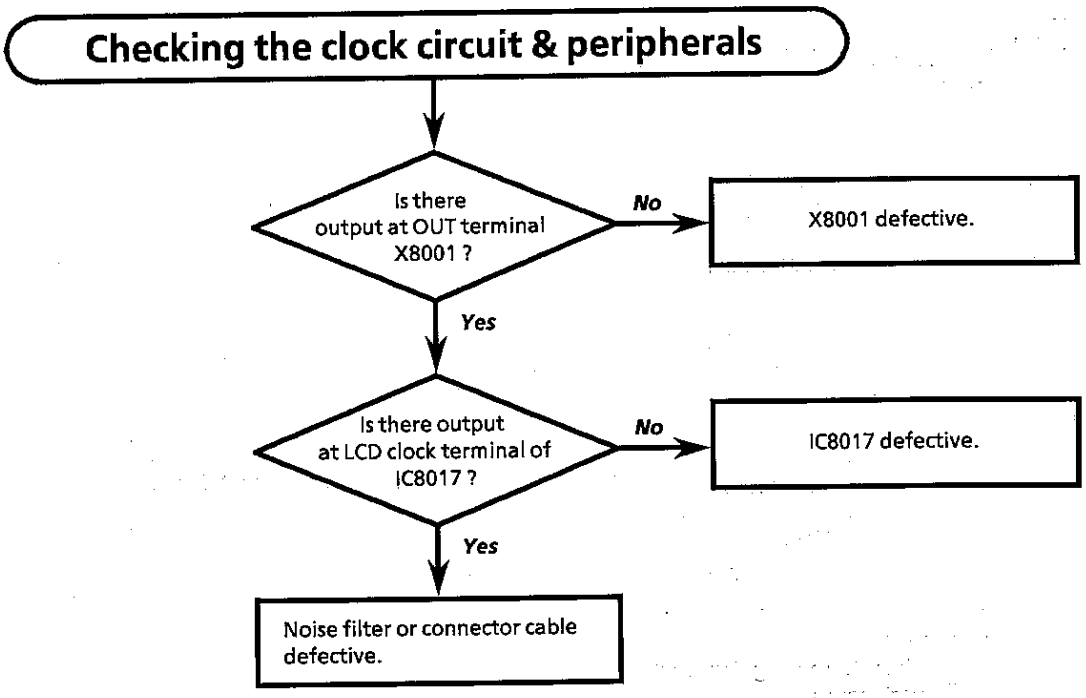

Checking the field memory blue circuit & peripherals
Are there signals at BA0 thru BA7 of IC8017 ?
No
IC8017's peripheral circuits defective.
Yes
Are there signals at BM0 thru BM7 of IC8017 ?
No
IC8017 defective.
Yes
Are there input signals at BM0 thru BM7 of IC8008, IC8009, IC8014 and IC8015 ?
No
Peripheral circuits of IC8008, IC8009, IC8014 and IC8015 defective.
Yes
Are there output signals at BO0 thru BO7 of IC8008, IC8009, IC8014 and IC8015 ?
No
Is there R clock input ?
No
Yes
Is there input at IC8003 ?
No
IC8003's peripheral circuits defective.
Yes
Is there W clock input?
No
Yes
Is there output at IC8003 ?
Yes
Damping resistor or connector cable defective.
IC8008, IC8009, IC8014 or IC8015, that does not give out signal, defective.
No
Is there clock input at IC8003 ?
No
IC8003's peripheral circuits defective.
IC8017 defective.
Yes
IC8003 defective.

PC-IF PWB TROUBLE SHOOTING (Continued)



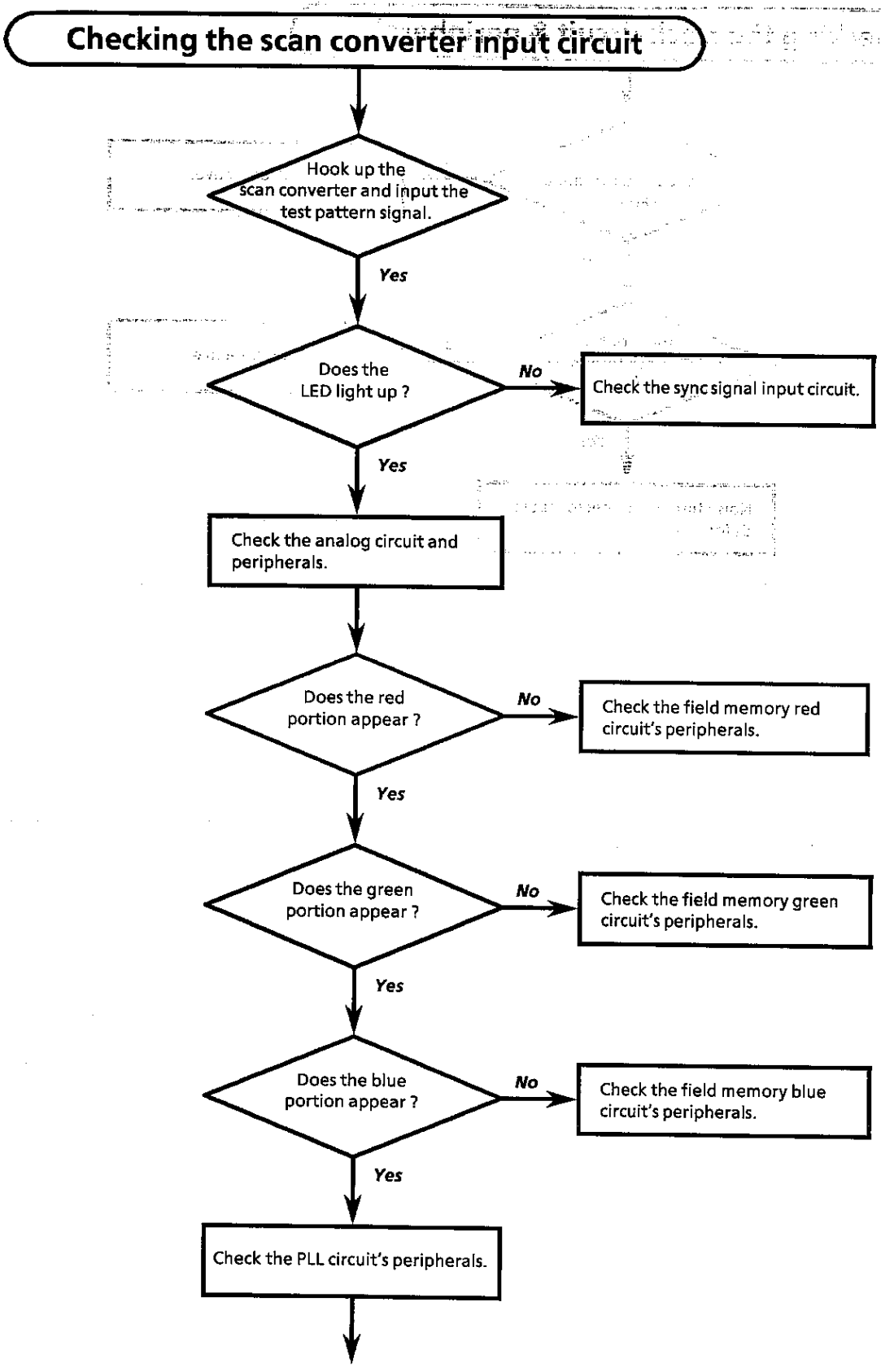


PC-IF PWB TROUBLE SHOOTING (Continued)



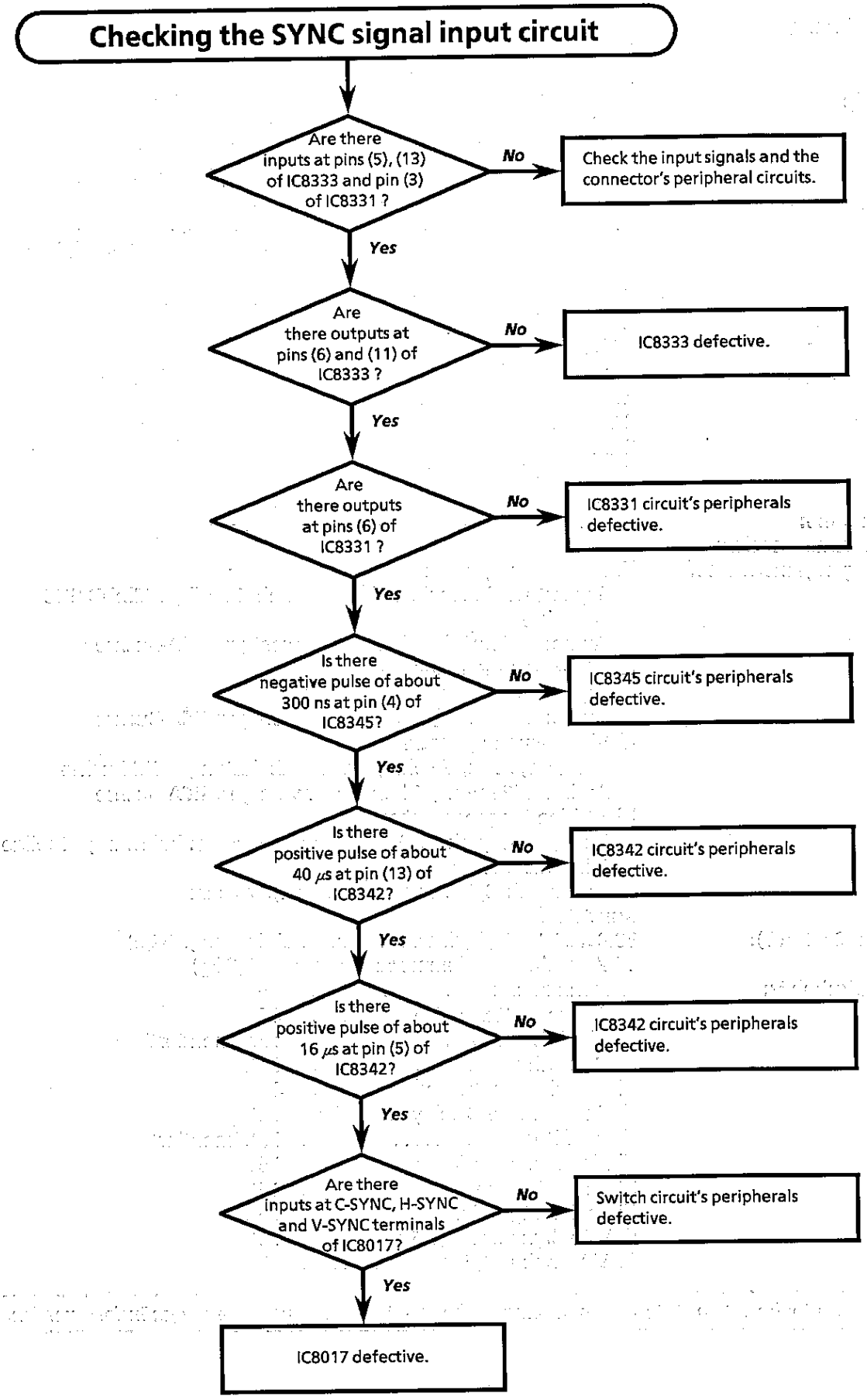
PC-IF PWB TROUBLE SHOOTING (Continued)

Checking the scan converter input circuit


Hook up the scan converter and input the test pattern signal.
Yes
Does the LED light up ?
No
Check the sync signal input circuit.
Yes
Check the analog circuit and peripherals.
Does the red portion appear ?
No
Check the field memory red circuit's peripherals.
Yes
Does the green portion appear ?
No
Check the field memory green circuit's peripherals.
Yes
Does the blue portion appear ?
No
Check the field memory blue circuit's peripherals.
Yes
Check the PLL circuit's peripherals.

Go to **"Checking the field memory PLL circuit & Peripherals"**

PC-IF PWB TROUBLE SHOOTING (Continued)


Checking the SYNC signal input circuit
Are there inputs at pins (5), (13) of IC8333 and pin (3) of IC8331 ?
No
Check the input signals and the connector's peripheral circuits.
Yes
Are there outputs at pins (6) and (11) of IC8333 ?
No
IC8333 defective.
Yes
Are there outputs at pins (6) of IC8331 ?
No
IC8331 circuit's peripherals defective.
Yes
Is there negative pulse of about 300 ns at pin (4) of IC8345?
No
IC8345 circuit's peripherals defective.
Yes
Is there positive pulse of about 40 μs at pin (13) of IC8342?
No
IC8342 circuit's peripherals defective.
Yes
Is there positive pulse of about 16 μs at pin (5) of IC8342?
No
IC8342 circuit's peripherals defective.
Yes
Are there inputs at C-SYNC, H-SYNC and V-SYNC terminals of IC8017?
No
Switch circuit's peripherals defective.
Yes
IC8017 defective.

TECHNISCHE DATEN

Produktbezeichnung:	LCD-Projektor
Modell:	XG-3800E
System:	PAL/SECAM/NTSC/3.58/NTSC4.43-system
Anzeigeprinzip:	3 LCD-Platten, Dreifarben-Prinzip mit optischem Verschluß
LCD-Platten:	☐ Plattengröße: 7,3 x 5,5 cm (B x H) ☐ Anzeigeprinzip: Transparente TN-Kristallplatten ☐ Antriebsprinzip: TFT-Aktivmatrixplatten (Dünnfilm-Transistor) ☐ Anzahl der Bildpunkte: 308 880 pixel (B: 643,5 x H: 480) <Effektives Pixel-Verhältnis: 99,99% oder höher>
Objektiv:	Zoom-Objektiv, F = 3,9~5,2; f = 100 mm~160 mm
Projektionslampe:	Metall-Halogenlampe
Kontrastverhältnis:	100:1
Horizontalauflösung:	Mehr als 560 Zeilen (NTSC)
Lampe:	Metall-Halogen-Entladungslampe
Audio-Ausgabe:	3 W (monaural)
Lautsprecher:	8 cm x 1
Nennspannung:	200~240 V-Wechselstrom
Nennfrequenz:	50/60 Hz
Leistungssufnahme:	230 W
Betriebstemperatur-Bereich:	5°C~40°C
Eingangs-/Ausgangsanschlüsse:	☐ RGB-Eingangsanschluß 2: Separates RGB-Analog/Digital-Signal: 15poliger Mini-D-SUB-Anschluß Audio: 142 mVeff, 1 kohm oder weniger: RCA-Buchse ☐ RGB-Eingangsanschluß 1: Separates RGB-Analog-Signal: BNC-Buchse Audio: 142 mVeff, 1 kohm oder weniger: RCA-Buchse ☐ Video-Eingangsanschluß: Video: 1,0 Vs-s, 75 ohm, Synchronbelastung: BNC-Buchse Audio: 142 mVeff, 1 kohm oder weniger: RCA-Buchse ☐ S-Video-Eingangsbuchse: Helligkeitssignal: 1,0 Vs-s, 75 ohm, Synchronbelastung: 4polige Mini-DIN-Buchse Farbsignal: 0,286 Vs-s (Burst-Signal), 75 ohm
Gehäuse:	Kunststoff
Abmessungen (B x H x T):	50,0 x 20,1 x 48,2 (einschl. Klemmenabdeckung: 52,6)
Gewicht:	14,7 kg (einschl. Klemmenabdeckung: 15,3 kg)
Mitgeliefertes Zubehör:	☐ Fernbedienung ..... 1 St. ☐ Trockenbatterie (Typ AA) ..... 4 St ☐ Objektivkappe ..... 1 St. (montiert) ☐ Staubschutzhülle ..... 1 St. ☐ Umgekehrte Display-Platte .... 4 St. ☐ Umgekehrter Display-Aufkleber 1 St. ☐ Luftfilter ..... 1 St. (montiert) ☐ Klemmenabdeckung ..... 1 St. ☐ Halteschraube ..... 2 St. ☐ Bedienungsanleitung ..... 1 St. ☐ VGA-Signalkabel (1,5 m) ..... 1 St. ☐ MAC-Kabel (1,5 m) ..... 1 St.

Die technischen Daten können ohne vorherige Ankündigung jederzeit geändert werden.

HINWEISE FÜR DEN WARTUNGSTEHNIKER

VORSICHTSMASSNAHMEN GEGEN UV-STRAHLUNG

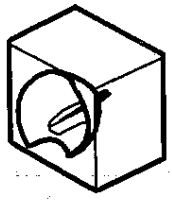
Die Lichtquelle (Metallhalogenidlampe) im LCD-Projektor erzeugt geringe Anteile von UV-Strahlung.

DIREKTEN AUGEN- UND HAUTKONTAKT VERMEDIEN.

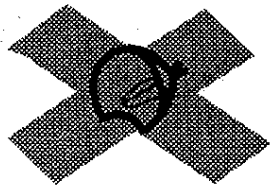
Folgende Sicherheitshinweise sind zu befolgen:

1. Bei der Wartung des Geräts muß bei eingeschalteter Lampe eine Sonnenschutzbrille getragen werdne. Der obere Deckel ist bei der Wartung zu enyfernen.

2. Die Lampe darf nicht außerhalb des Lampengehäuses verwendet werden.



3. Bei entferntem oberen Deckel nicht läanger als 2 Stunden betreiben.

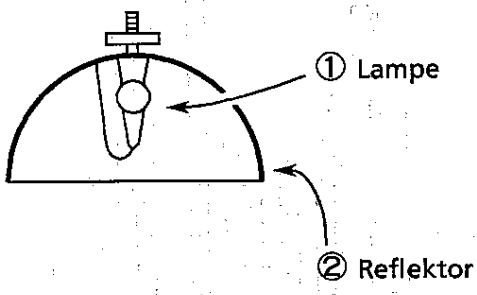


Vorsichtsmaßnahmen bezüglich UV-Strahlung und Mitteldrucklampen

1. Vor dem Auswechseln der Lampe unbedingt den Netzstecker ziehen.
2. Das Gerät vor dem Durchführen von Wartungsarbeiten eine Stunde abkühlen lassen.
3. Nur gegen eine Lampe der gleichen Sorte auswechseln. Sorte **RLMPF0013CEZZ**, 85 V / 150 W.
4. Da die Lampe eine geringe UV-Strahlung aufweiat, sollte direkter Blickkontakt vermieden werden.
5. Die Mitteldrucklampe weist ein Explosionsrisiko auf. Die nachstehenden Einbauanweisungen beachten und die Lampe vorsichtig handhaben.

■ Auswechseln der Lampe

Hinweis:
Da die Lampe während des Betriebs extrem heiß wird, solltdas Auswechseln erst eine Stunde nach dem Ausschalten stattfinden (abkühlzeit).
Beim Anbringen der neuen Lampe die Birne unbedingt nicht berühen. Den Reflektor ② der Lampe beim Auswechseln halten.
[Nur das Original-Ersatzteil verwenden.]



GEFAHR ! — Niemals die Spannungsversorgung ohne Lampe einschalten, um elektrische Schläge und Schäden des Gerätes zu vermeiden, da der Stabilisator beim Einschalten hohe Spannungen erzeugt.

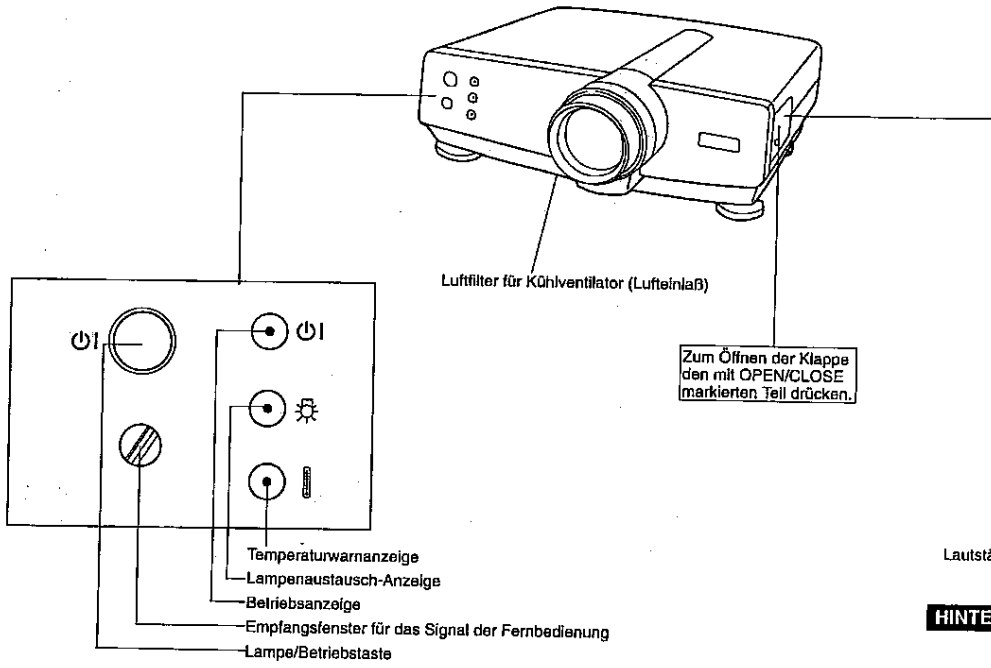
Lage der Bedienelemente

Die Temperatur-Überwachungsfunktion

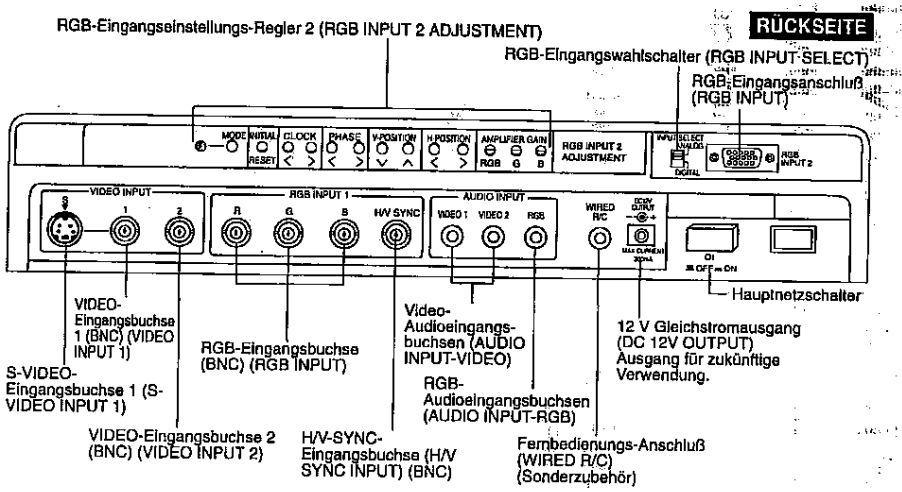
ANZEIGE AUF DER BILDWAND

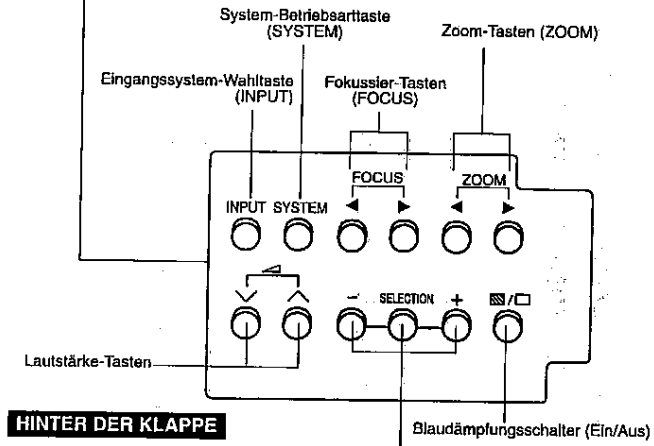
- Wenn der Projektor aufgrund von Problemen bei der Aufstellung oder wegen einem verschmutzten Filter zu überhitzen beginnt, blinkt "TEMP" in der oberen linken Ecke des Bildes. Wenn die Temperatur weiter ansteigt, leuchtet die Temperaturwarnanzeige auf und das Gerät schaltet sich aus. Siehe den Abschnitt "Warnanzeigen" wenn diese Warnung auf der Bildwand erscheint.
- Der Kühlventilator reguliert die Innentemperatur; seine Leistung wird automatisch geregelt. Das Geräusch des Ventilators kann sich während des Betriebs aufgrund der Ventilatordrehzahl ändern.

VORDERANSICHT



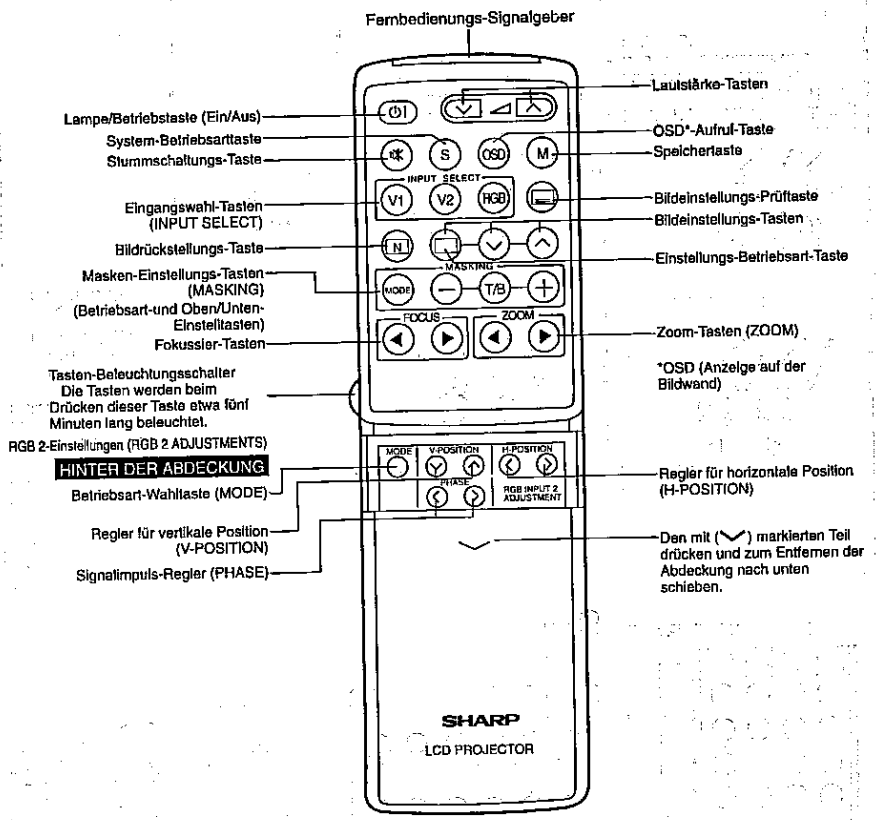
RÜCKSEITE


RGB-Eingangseinstellungs-Regler 2 (RGB INPUT 2 ADJUSTMENT)
RGB-Eingangswahlschalter (RGB INPUT SELECT)
RGB-Eingangsanschluß (RGB INPUT)
VIDEO-Eingangsbuchse 1 (BNC) (VIDEO INPUT 1)
S-VIDEO-Eingangsbuchse 1 (S-VIDEO INPUT 1)
VIDEO-Eingangsbuchse 2 (BNC) (VIDEO INPUT 2)
RGB-Eingangsbuchse (BNC) (RGB INPUT)
H/V-SYNC-Eingangsbuchse (H/V SYNC INPUT) (BNC)
Video-Audioeingangs-buchsen (AUDIO INPUT-VIDEO)
RGB-Audioeingangsbuchsen (AUDIO INPUT-RGB)
Fernbedienungs-Anschluß (WIRED R/C) (Sonderzubehör)
12 V Gleichstromausgang (DC 12V OUTPUT) Ausgang für zukünftige Verwendung.
Hauptnetzschalter



HINTER DER KLAPPE

FERNBEDIENUNG

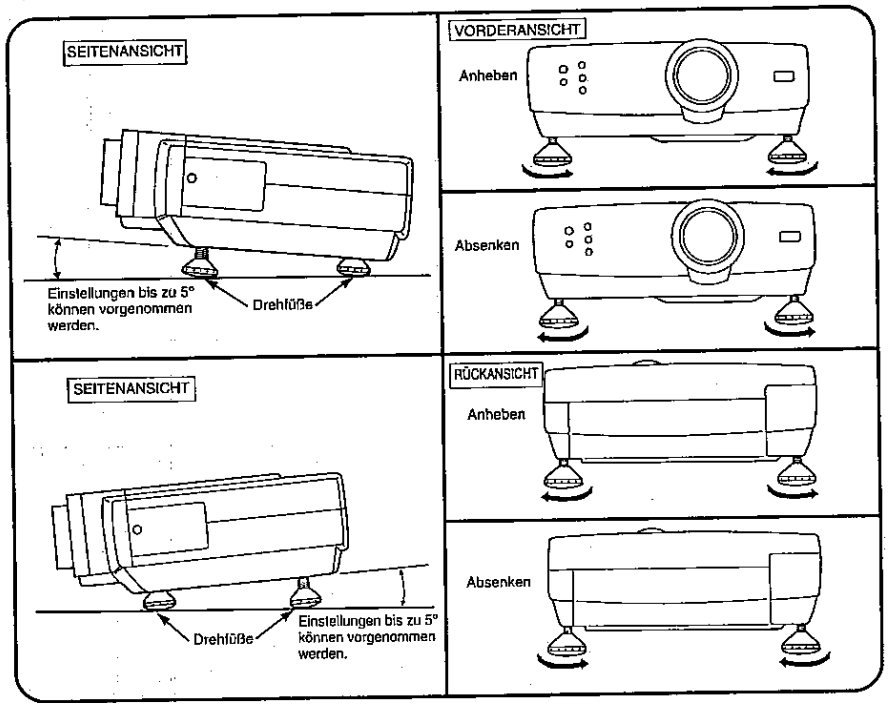


Vorsichtsmaßnahmen bei der Verwendung der Fernbedienung
Die Fernbedienung nicht Stößen, Flüssigkeiten oder hoher Feuchtigkeit aussetzen.
Die Fernbedienung kann möglicherweise nicht richtig funktionieren, wenn sie direkter Sonneneinstrahlung oder starken Lichtquellen ausgesetzt ist. In diesem Fall sollte die Lichtquelle des LCD-Projektors verschoben werden.

Aufbau des Projektors

Verwendung der Drehfüße zur Einstellung von Niveau und Höhe

• Mit den Drehfüßen auf der Unterseite des Projektors kann der vertikale Winkel eingestellt werden.



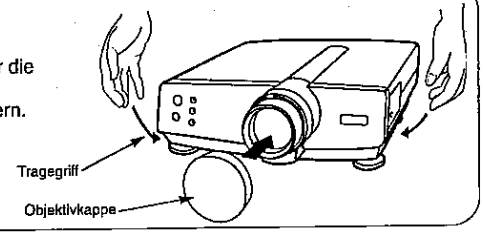
Hinweis:

1 Beim Einstellen mit den Drehfüßen kann das Bild abhängig von der relativen Position des Projektors und der Bildwand verzogen werden.
2 Nach dem Einstellen kann es vorkommen, daß nicht alle Drehfüße auf der Oberfläche aufsitzen. Um ein Wackeln des Projektors zu vermeiden, sollten alle vier Drehfüße fest auf der Oberfläche anliegen.

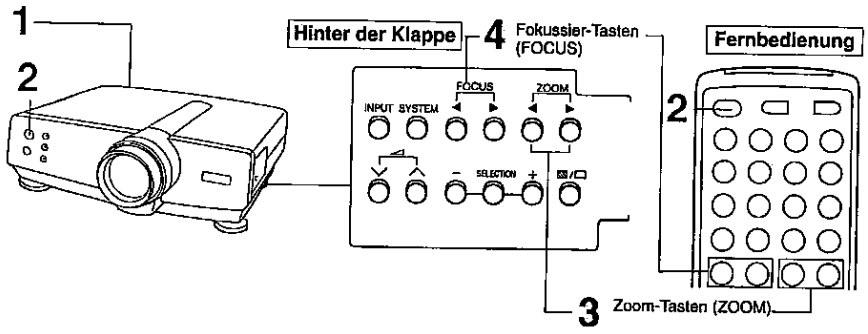
Transport des Projektors

Mit beiden Händen halten.

Hinweis:
Beim Transport des Projektors sollte immer die Objektivkappe aufgesetzt werden, um Beschädigungen des Objektivs zu verhindern.



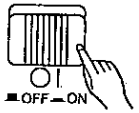
Verwendung der Zoom- und Fokussier-Tasten



1 Das Gerät einschalten.

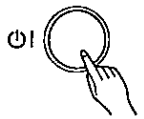
Projektor (Rückansicht)

Den Hauptnetzschalter auf die Position ON stellen.



2 Die Lampe einschalten.

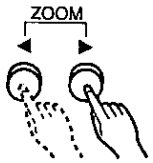
Projektor (Rückansicht)



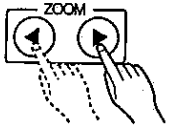
Fernbedienung

3 Mit den Zoom-Tasten (ZOOM) die Bildgröße einstellen.

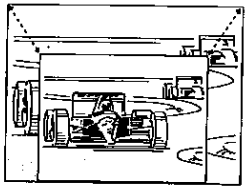
Projektor



Fernbedienung

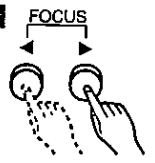


- Das Bild kann innerhalb des Bereichs des Zoom-Objektivs auf die gewünschte Größe eingestellt werden.

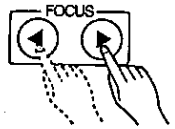


4 Mit den Fokussier-Tasten (FOCUS) das Bild scharf stellen.

Projektor

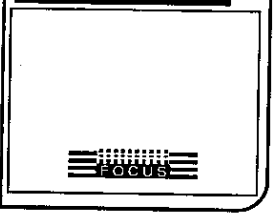


Fernbedienung



- Mit den Tasten die Fokussierung solange einstellen, bis das Bild auf der Bildwand scharf ist.
- Das Fokussiermuster wird angezeigt.

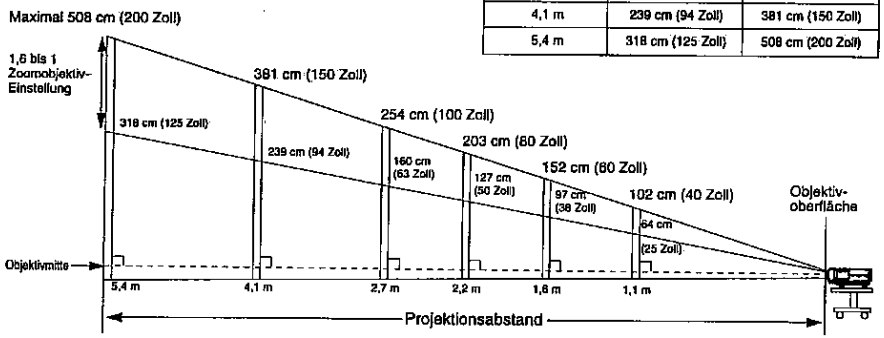
Anzeige auf der Bildwand.



- Mit dem motorbetriebenen Zoomobjektiv kann das Bild innerhalb des Projektionsbereichs eingestellt werden.
- Das Bild kann mit einem Abstand vom Projektor zur Bildwand von minimal 1,1 m bis maximal 8,8 m scharfgestellt werden.

Beziehung zwischen Projektorabstand und Bildgröße

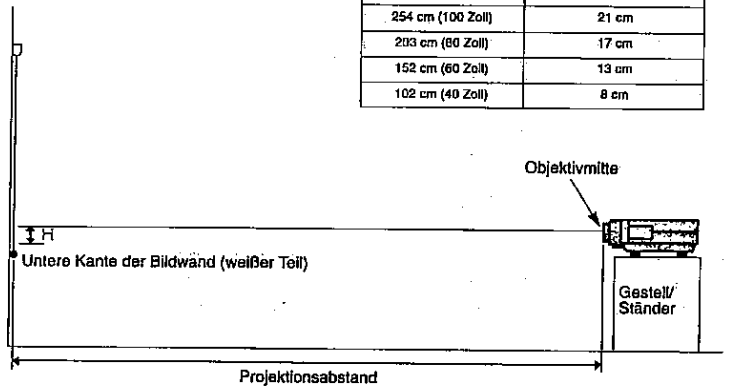
Projektionsabstand	Minimale Bildgröße	Maximale Bildgröße
1,1 m	64 cm (25 Zoll)	102 cm (40 Zoll)
1,8 m	97 cm (38 Zoll)	152 cm (60 Zoll)
2,2 m	127 cm (50 Zoll)	203 cm (80 Zoll)
2,7 m	160 cm (63 Zoll)	254 cm (100 Zoll)
4,1 m	239 cm (94 Zoll)	381 cm (150 Zoll)
5,4 m	318 cm (125 Zoll)	508 cm (200 Zoll)



Die obige Abbildung zeigt den minimalen Projektionsabstand für das Gerät XG-3800E.
Der Projektor sollte nach vorne oder hinten bewegt werden, wenn das Bild verzogen ist.

Höhe des Projektors

Maximale Bildgröße (Diagonale)	Abstand von der Objektivmitte bis zur unteren Kante der Bildwand (H)
508 cm (200 Zoll)	43 cm
381 cm (150 Zoll)	33 cm
254 cm (100 Zoll)	21 cm
203 cm (80 Zoll)	17 cm
152 cm (60 Zoll)	13 cm
102 cm (40 Zoll)	8 cm



Aufbau des Projektors und der Bildwand

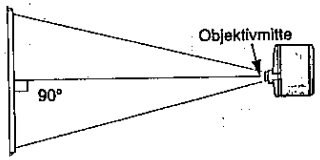
Vorsicht: Beim Aufbau des Projektors beachten!

- Das Gerät nicht an feuchten und staubigen Plätzen aufstellen oder an Plätzen, an denen die Luft rußig oder viel Zigarettenrauch vorhanden ist. Wenn das Objektiv, der Spiegel oder andere optische Bauteile verschmutzen, wird das Bild verschwommen oder dunkel und die Wiedergabe verschlechtert sich.
- Das Gerät nicht extremer Wärme oder Kälte aussetzen.
  Betriebstemperatur: 5°C - 40°C
  Lagertemperatur: -20°C - 60°C

Beispiel eines Standardaufbaus

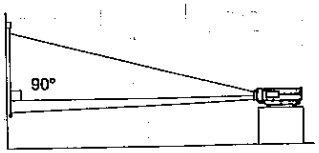
- Die Bildwand so aufstellen, daß sie nicht direkter Sonneneinstrahlung oder der Raumbeleuchtung ausgesetzt ist. Direkt auf die Bildwand fallendes Licht führt zu verwaschenen Farben und verschlechtert die Wiedergabe. Vorhänge sollte zugezogen und die Raumbeleuchtung verringert werden, wenn das Gerät in einem hellen oder sonnigen Raum verwendet wird.
- Die beste Bildqualität kann erzielt werden, wenn der Projektor einen Winkel von 90° zur Bildwand hat. Den Projektor und die Bildwand wie gezeigt aufbauen.

ANSICHT VON OBEN



Der Projektor sollte mittig vor der Bildwand aufgebaut werden.

SEITENANSICHT



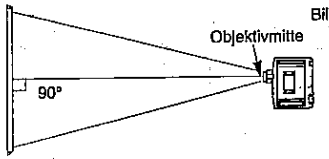
Die Unterseite des Projektorobjektivs sollte sich etwas über der Unterseite der Bildwand befinden.

Wenn die Einstellungen des Projektors und der Bildwand falsch sind, ist das Bild verzerrt und die Wiedergabe schlecht.

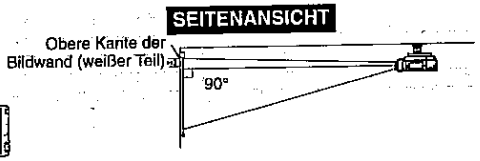
Beispiel für eine Anbringung an der Decke

- Der Projektor bietet die beste Bildqualität, wenn er senkrecht zur Bildwand angebracht wird. Wie im folgenden gezeigt anbringen.
- Vor dem Anbringen des Projektors sollte der örtliche autorisierte Sharp-LCD-Industrie-Produkte-Händler zu Rate gezogen werden, um die vom Hersteller empfohlene Deckeninstallations-Einheit und den Installations-Adapter zu bestellen, die getrennt erhältlich sind. (AN-EITKE Halterung zur Deckenbefestigung, AN-TK201/AN-TK202 Verlängerungsrohr für AN-EITKE).

ANSICHT VON OBEN



SEITENANSICHT



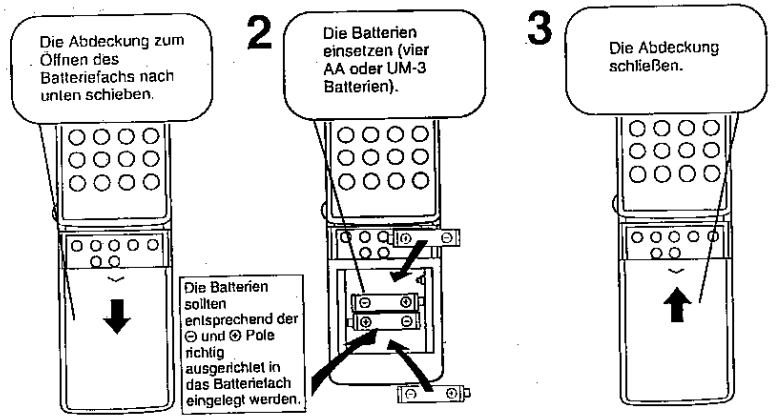
- Wenn die relative Position des Projektors und der Bildwand nicht richtig eingestellt sind, ist das Bild verzerrt und die Wiedergabe schlecht.

Hinweis: Für die Anbringung sollte der örtliche autorisierte Sharp-LCD-Industrie-Produkte-Händler zu Rate gezogen werden.

Verwendung der Fernbedienung

Batteriefach

- Die Batterien liegen dieser Bedienungsanleitung bei.


1
Die Abdeckung zum Öffnen des Batteriefachs nach unten schieben.
2
Die Batterien einsetzen (vier AA oder UM-3 Batterien).
3
Die Abdeckung schließen.
Die Batterien sollten entsprechend der ⊖ und ⊕ Pole richtig ausgerichtet in das Batteriefach eingelegt werden.

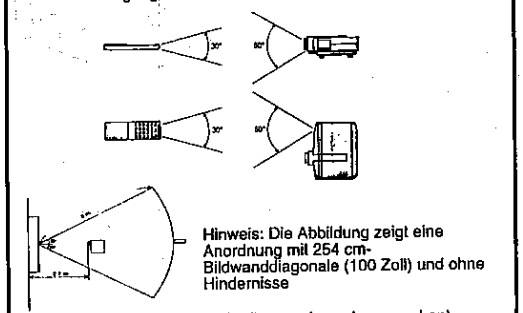
HINWEISE ZU BATTERIEN

Die falsche Verwendung von Batterien kann zum Auslaufen oder Bruch führen.

- Die Batterien unter Beachtung der ⊕ und ⊖ Pole richtig einsetzen.
- Die Batterien sollten aus der Fernbedienung entfernt werden, wenn diese für längere Zeit nicht verwendet wird (mehr als einen Monat).
- Die Batterien sauber halten.
- Unterschiedliche Batteriearten nicht zusammen verwenden.
- Keine alten und neuen Batterien zusammen verwenden. Die Lebensdauer einer neuen Batterie wird dadurch verkürzt und die alten Batterien können auslaufen.
- Verbrauchte Batterien sollten entfernt werden, um ein Auslaufen zu verhindern. Ausgelaufene Batterieflüssigkeit kann zu Hautreizungen führen.
- Wegen der Lagerbedingungen und des Herstellungsdatums der mitgelieferten Batterien können diese nach kurzer Zeit verbraucht sein. Sie sollten dann so schnell wie möglich durch neue Batterien ersetzt werden.

Verwendung der Fernbedienung

- Die Fernbedienung wie in der Abbildung gezeigt verwenden.



- Wirkungsbereich der Fernbedienung (von oben gesehen)

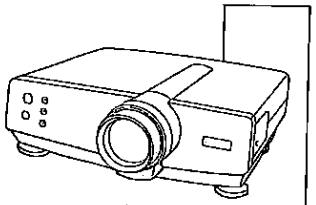
Verwendung der Fernbedienung in einem dunklen Raum

- Durch Drücken der Taste werden die Bedienelemente etwa fünf Sekunden lang beleuchtet.

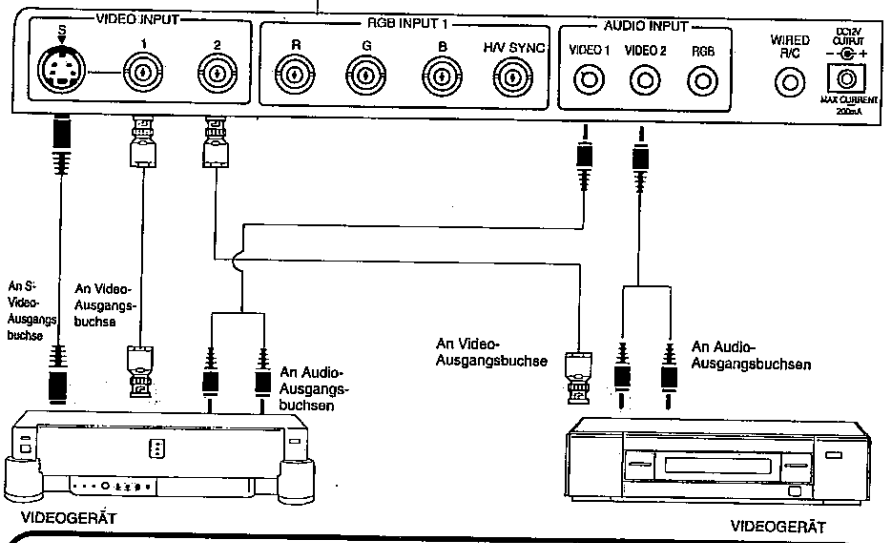
Anschluß des Projektors

SYSTEM 1

Anschluß des Projektors an Videogeräte

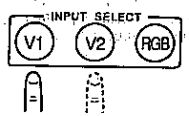


Hinweise:
- Vor dem Anschluß von Videogeräten ist sicherzustellen, daß das Gerät ausgeschaltet ist. Dadurch werden der Projektor und die anzuschließenden Geräte geschützt.
- Siehe die Bedienungsanleitung der an den Projektor anzuschließenden Geräte für Hinweise zum Anschluß.



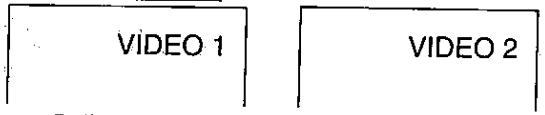
Verwendung der Eingangswahl-Taste (INPUT SELECT) zur Wahl von VIDEO 1 oder VIDEO 2.

- Fernbedienung



Diese Tasten sind ebenfalls auf dem Hauptgerät vorhanden.

Anzeige auf der Bildwand

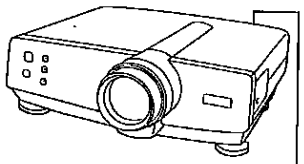


Vorrang-Funktion der S-VIDEO-Buchse

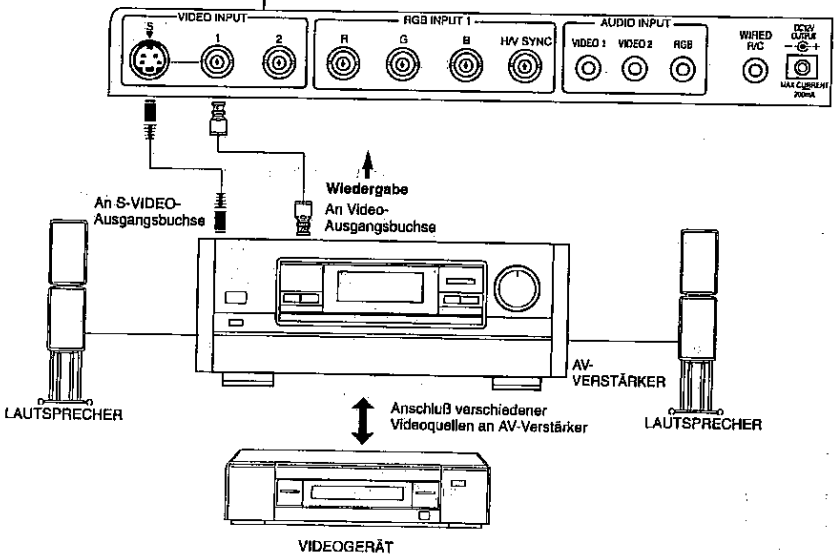
Die Videoeingang 1- und S-VIDEO-Eingangsbuchsen dieses Projektors sind so eingestellt, daß die S-VIDEO-Eingangsbuchse Vorrang hat.
- Wenn Videogeräte an beiden Buchsen angeschlossen sind, wird das Bild der S-VIDEO-Eingangsbuchse auf der Bildwand wiedergegeben.
- Zur Wiedergabe von Videogeräten, die an der Videoeingang 1-Buchse angeschlossen sind, sollte der Stecker von der S-VIDEO-Eingangsbuchse abgetrennt werden.

SYSTEM 2

Anschluß des Projektors an Video- und Audiogeräte (mit Anschluß an einen Audio-Verstärker).

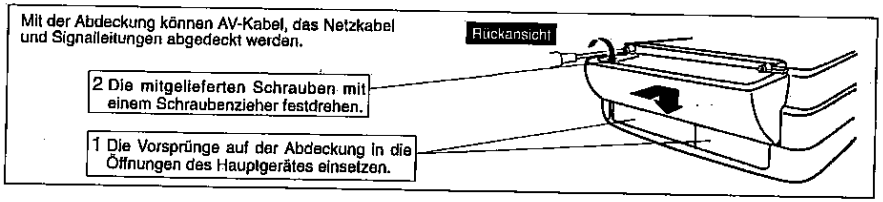


- Zum Anschluß eines S-VHS-Videogerätes oder eines mit S-VIDEO-Ausgangsbuchsen ausgestatteten Gerätes und zusammen mit einem Videogrerät mit nur einer normalen Video-Ausgangsbuchse über einen AV-Verstärker zur Wiedergabe von Videos sollte die VIDEO INPUT S-VIDEO-Buchse und die VIDEO INPUT 1-Buchse des Projektors verwendet werden.
- Zur Wiedergabe eines Videos mit einem mit S-VIDEO-Ausgangsbuchsen ausgestatteten Videogerät sollte die INPUT SELECT VI-Taste zur Wahl von "VIDEO 1" gedrückt werden. Die S-VIDEO-Eingangsbuchse hat Vorrang gegenüber der normalen VIDEO 1-Eingangsbuchse. Bei Verwendung eines mit einer normalen Video-Ausgangsbuchse ausgestatteten Gerätes sollte die INPUT SELECT VI-Taste zur Wahl von "VIDEO 1" gedrückt werden.. Der S-VIDEO-Eingang sollte das Kabel abgetrennt werden.

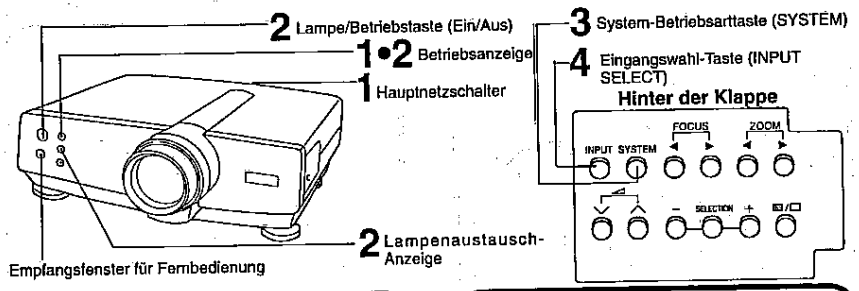


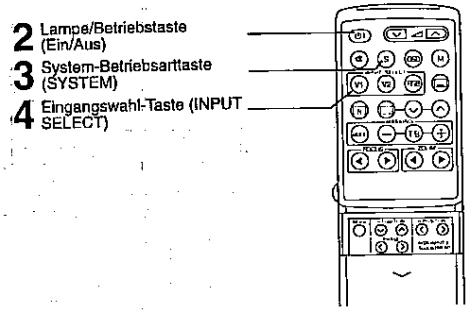
Anbringung der Anschluß-Abdeckung (mitgeliefert)

Mit der Abdeckung können AV-Kabel, das Netzkabel und Signalleitungen abgedeckt werden.


Rückansicht
2 Die mitgelieferten Schrauben mit einem Schraubenzieher festdrehen.
1 Die Vorsprünge auf der Abdeckung in die Öffnungen des Hauptgerätes einsetzen.

Verwendung des Projektors

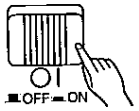




1 Einschalten des Hauptnetzschalters

Projektor

Den Hauptnetzschalter drücken.



- Bei der erstmaligen Verwendung des Projektors oder bei erloschener Betriebsanzeige sollte der Hauptnetzschalter auf die Position ON eingestellt werden. (Anzeige leuchtet rot auf.)
- Die Betriebsanzeige erlischt, wenn das Gerät mit dem Hauptnetzschalter ausgeschaltet wird.

Anzeige leuchtet nicht auf:
Hauptnetzschalter ausgeschaltet

Anzeige leuchtet rot auf:
Gerät ist auf Betriebsbereitschaft eingestellt.

Anzeige leuchtet grün auf:
Projektorlampe ist eingeschaltet.

2 Einschalten der Projektorlampe

Die Lampen-Taste drücken.

Projektor | Fernbedienung

Beim Einschalten des Projektors ändert sich die Farbe der Betriebsanzeige von rot auf grün.
Beim Ausschalten des Projektors ändert sich die Farbe der Betriebsanzeige von grün auf rot.

Die Anzeige leuchtet grün auf.

Grün: Lampe ist eingeschaltet.

Blinkende grüne Anzeige:
Lampe wird aufgewärmt.
Leuchtet rot auf: Lampe sollte ausgetauscht werden.

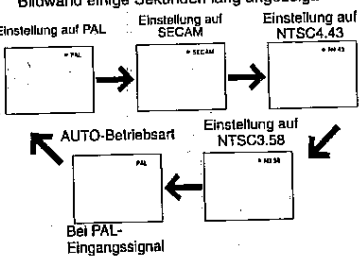
Siehe "Warnanzeigen" für weitere Hinweise.

3 Systemumschaltung

Die System-Betriebsarttaste (SYSTEM) drücken.

Projektor: SYSTEM | Fernbedienung: S

- Beim Drücken der Taste wird das gewählte Farbsystem in der oberen rechten Ecke der Bildwand einige Sekunden lang angezeigt.

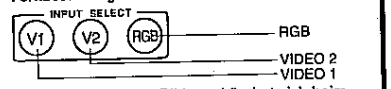


* In der automatischen Betriebsart wird "PAL", "SECAM", NTSC4.43" bzw. "NTSC3.58" einige Sekunden lang auf der Bildwand angezeigt, wenn die Betriebsart automatisch umgeschaltet wird.

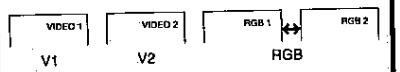
4 Eingangswahl (INPUT)

Die Eingangswahl-Tasten (INPUT SELECT) auf der Fernbedienung können zum Umschalten der Programmquelle verwendet werden.

- **Fernbedienung**



Die Anzeige auf der Bildwand ändert sich beim Drücken der einzelnen Tasten folgendermaßen.

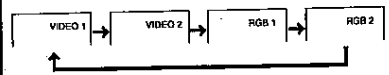


- **Die Eingangswahl-Taste (INPUT SELECT) auf dem Bedienfeld des Projektors** INPUT

Die unten angezeigte Reihenfolge wird beim Drücken der Taste durchlaufen.

VIDEO 1 → VIDEO 2 → RGB 1 → RGB 2

Die Anzeige auf der Bildwand ändert sich wie in der Abbildung gezeigt.

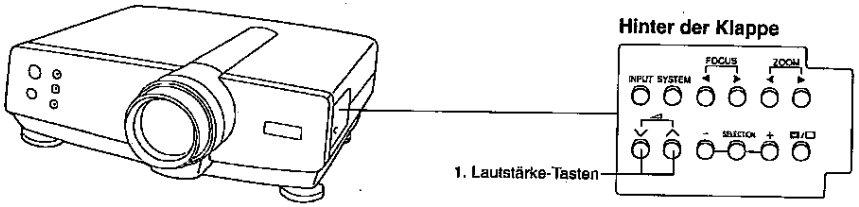


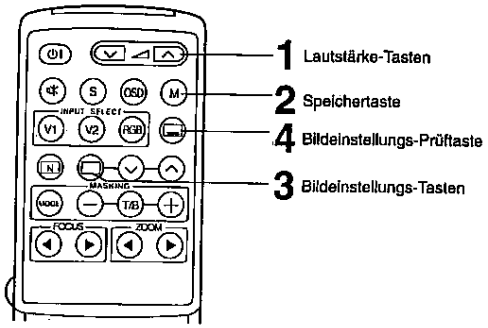
Hinweis: Die S-VIDEO INPUT 1-Buchse hat gegenüber anderen Videoeingängen Vorrang.

Hinweis:
- Wenn die Betriebsanzeige nicht aufleuchtet, kann die Fernbedienung nicht zum Betrieb des Projektors verwendet werden.
- Wenn das Gerät sofort nach dem Ausschalten wieder eingeschaltet wird, kann bis zum Einschalten der Lampe einige Zeit vergehen. (Während dieser Zeit blinkt die Lampenaustausch-Anzeige.)

Bild- und Lautstärkeregler

- Das Bild des Projektors ist ab Werk auf Standard-Wiedergabe eingestellt. Das Bild kann jedoch nach Wunsch mit den Bildeinstellungs-Tasten eingestellt werden.
- Die neuen Einstellungen für das Wiedergabebild werden gespeichert.



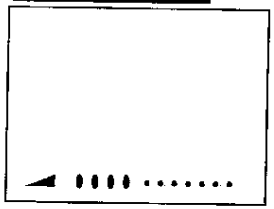


1 Einstellung der Lautstärke

Die Lautstärke-Tasten drücken.

Projektor | Fernbedienung

ANZEIGE AUF DER BILDWAND



Die Anzahl der angezeigten Segmente (0 - 16) erhöht oder verringert sich beim Anheben oder Senken der Lautstärke.

Anmerkung: Der Ton kann vorübergehend mit der Stummschaltungs-Taste (SOUND MUTE) stummgeschaltet werden.

(Fernbedienung)

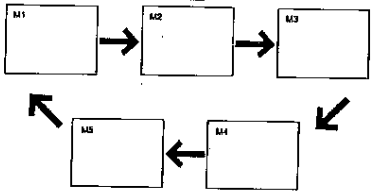
2 Wahl des Speichers (MEMORY)

Die Speichertaste drücken.

Fernbedienung

- Die Speichertaste zur Wahl einer vom Benutzer eingegebenen Bildeinstellung drücken. Jede der fünf Speicherpositionen kann für die Einstellung einer Bildwiedergabe verwendet werden.
- Bei jedem Drücken der Speichertaste während der Anzeige auf der Bildwand ändert sich die Anzeige folgendermaßen.

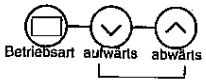
ANZEIGE AUF DER BILDWAND



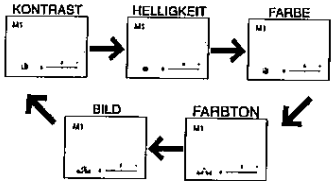
3 Einstellung des Bildes

Die Bildeinstellungs-Tasten drücken.

Fernbedienung



Die Bildeinstellungs-Betriebsart ändert sich bei jedem Drücken der Bild-Einstellungs-Taste folgendermaßen. (M1 zeigt eine Speichernummer an.)



- Die einzustellende Betriebsart wählen und dann die Einstellungen mit den Aufwärts/Abwärts-Tasten vornehmen.
- Die Betriebsarten werden auf der Bildwand nur wenige Sekunden angezeigt. Die Einstellungen sollten während der Anzeige auf der Bildwand durchgeführt werden.
  Die Einstellungen für den Farbton können nur beim Empfang eines NTSC-Signals durchgeführt werden.

Hinweis: • Bei der Wahl des RGB-Signaleingangs können nur KONTRAST und HELLIGKEIT eingestellt werden.

Hinweis: Die Bildeinstellungen können durch Drücken der Bildrückstellungs-Taste auf die Grundeinstellung (ab Werk) zurückgestellt werden.

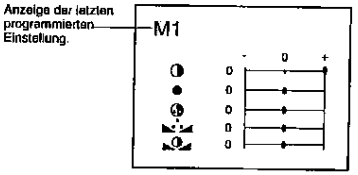
(N) (Fernbedienung)

4 Überprüfung der Bildeinstellungen

Die Bildeinstellungs-Prüftaste drücken.

Fernbedienung

Die Bildeinstellungs-Prüftaste auf der Fernbedienung zum Überprüfen der gespeicherten Einstellungen drücken.



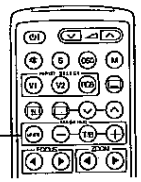
- Das Bild kann durch Drücken der Bild-Einstellungs-Taste zur Wahl des entsprechenden Gegenstandes eingestellt werden. Dann werden die Einstellungen mit den Aufwärts/Abwärts-Tasten durchgeführt.

Hinweis: Die eingestellte Betriebsart wird gelb angezeigt.

Masken-Einstellung

■ Die Maskenfunktion kann zur Wiedergabe von Breitwand-Bildern verwendet werden. Sie haben schwarze Bänder auf der Ober- und Unterseite der Bildwand.
Mit diesem Projektor können drei Betriebsarten verwendet werden: "Normale Betriebsart", "Vista-Betriebsart" und "CinemaScope/Briefkasten-Betriebsart".

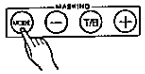
Fernbedienung



Wahl der Masken-Betriebsart

Die Masken-Einstellungs-Taste (MASKING MODE) drücken. Dann den Eingang wählen.

Fernbedienung



- Die Betriebsart ändert sich jedesmal wie unten gezeigt beim Drücken der Masken-Einstellungs-Taste (MASKING MODE).
- Die Vista-Betriebsart wird durch die gelbe Markierung ▲ angezeigt. Die CinemaScope-Betriebsart wird durch die blaue Markierung ▲ angezeigt.

ANZEIGE AUF DER BILDWAND

- Bei den verschiedenen Masken-Betriebsarten ändert sich die Anzeige auf der Bildwand wie unten gezeigt.

ANZEIGE AUF DER BILDWAND

Hinweise

- Bei der Wahl des RGB-Signaleingangs kann die Masken-Betriebsart nicht verwendet werden.
- Bei der geschäftlichen Verwendung des LCD-Projektors oder bei Vorführungen in der Öffentlichkeit kann die Verwendung dieser Bildmasken-Funktion die rechtlich geschützten Urheberrechte des Herstellers der Video-Software verletzten.
- Die in einer Betriebsart aufgenommene Video-Software kann nicht konvertiert und in einer anderen Betriebsart wiedergegeben werden.

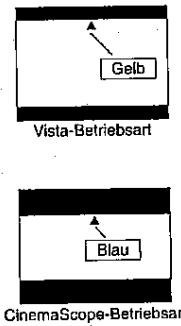
Masken-Einstellung

1 Mit der Masken-Einstellungs-Taste (MASKING MODE) die einzustellende Betriebsart wählen.

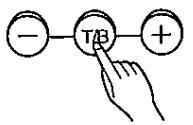
Fernbedienung

- Die Markierung ▲ erscheint vier Sekunden lang zur Anzeige der Betriebsart.

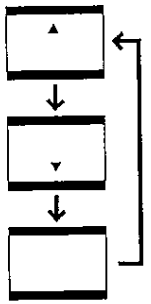
Anzeige auf der Bildwand



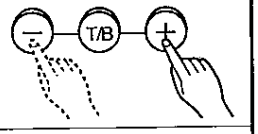
2 Die Oben/Unten-Wahltaste drücken.



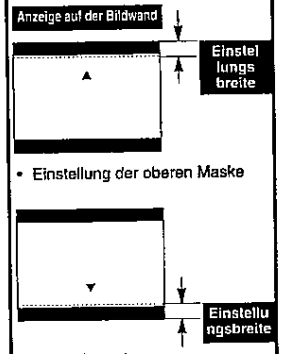
- Wenn die Oben/Unten-Wahltaste während der Anzeige der einzustellenden Betriebsart gedrückt wird, wird der einzustellende Teil durch die Markierung ▲ bzw. ▼ angezeigt.
- Jedesmal beim Drücken der Taste ändert sich die Bildwand wie unten gezeigt.
- Die Markierung ▲ bzw. ▼ wird vier Sekunden lang angezeigt.



3 Einstellung mit den Masken-Einstellungs-Tasten (+/-) (MASKING)



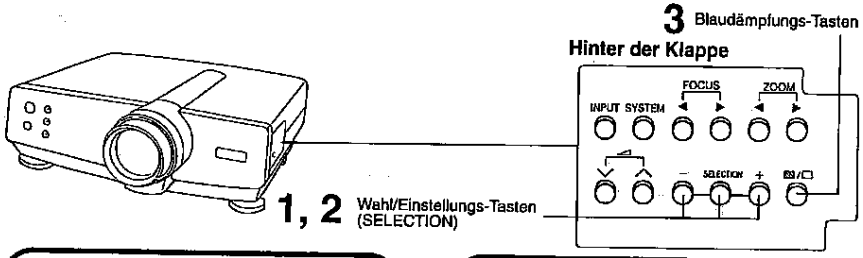
- Durch Drücken der Masken-Einstellungs-Taste ⊕ oder ⊖ (MASKING) während der Anzeige der Markierung ▲ bzw. ▼ auf der Bildwand wird das Band breiter oder schmaler.

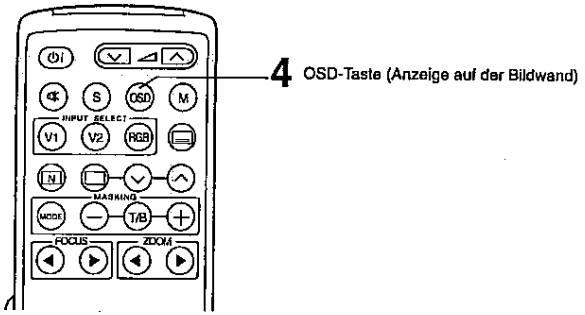


- Einstellung der oberen Maske
- Einstellung der unteren Maske

Hinweis: Die als letztes eingestellte Masken-Betriebsart wird als Bildwand-Einstellung gespeichert.

Sonstige Funktionen





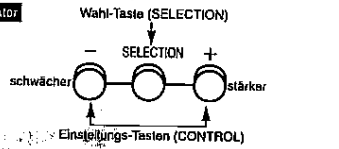
1 Kehrbild/Umkehrung des Bildes

■ Dieser Projektor ist mit einer automatischen Kehrbild-Funktion ausgestattet, die das Bild beim Umdrehen des Projektors automatisch auch umdreht. Diese Funktion wird bei Befestigung des Projektors an einer Decke oder an einem hohen Ort verwendet.
Das Bild kann ebenfalls von Hand durch Drücken der Wahl-Taste (SELECTION) auf dem Bedienfeld zur Wahl einer Kehrbild-Wiedergabe umgedreht werden.

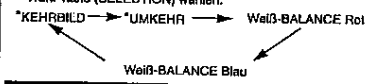
■ Dieser Projektor ist weiterhin mit einer Umkehr-Funktion ausgestattet, mit der das Bild spiegelverkehrt wiedergegeben werden kann (rechts auf-links).
(Diese Funktion kann für eine Rückprojektion auf transparenten Bildwänden oder bei Projektion mit einem Spiegel verwendet werden.)

Die Wahl-Taste (SELECTION) drücken.

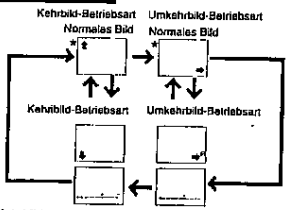
Projektor



• Die Kehrbild- oder Umkehr-Betriebsart durch Drücken der Wahl-Taste (SELECTION) wählen.



Anzeige auf der Bildwand



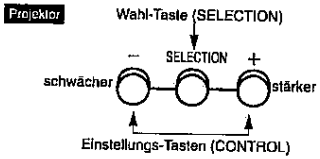
• Die Kehrbild- oder Umkehr-Wiedergabe durch Drücken der Einstellungs-Tasten (+) oder (-) wählen.
Die Einstellungs-Taste erneut zum Zurückgehen auf die ursprüngliche Wiedergabe-Betriebsart drücken.

2 Einstellung der Weißbalance

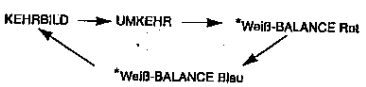
■ Die roten und blauen Bestandteile der Weißbalance können zur Übereinstimmung des Hintergrunds eingestellt werden, wenn mehrere Projektoren in Reihe für eine Multi-Bildschau usw. verwendet werden.

Die Wahl-Taste (SELECTION) drücken.

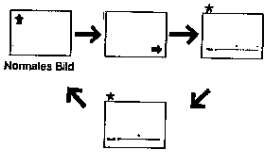
Projektor



• Die Rot- oder Blau-Einstellungs-Betriebsart durch Drücken der Wahl-Taste (SELECTION) wählen.



Anzeige auf der Bildwand



• Einstellung durch Drücken der Tasten (-: schwächer, +: stärker)

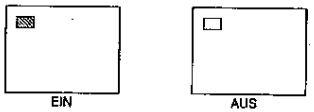
3 Blaudämpfungs-Funktion

■ Dieser Projektor ist mit einer Blaudämpfungs-Funktion ausgestattet, mit der die Wiedergabe auf blau umschaltet, wenn kein Signal empfangen wird.

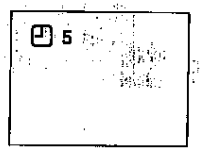
Die Wahl-Taste (SELECTION) drücken.

Projektor

Anzeige auf der Bildwand



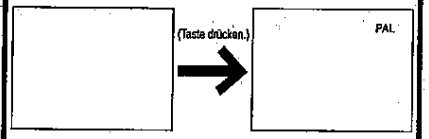
• Wenn die Blaudämpfungs-Taste zum Einschalten von ▨ (ON) gedrückt wird, wird die Wiedergabe auf Blau umgeschaltet, wenn Rauschen oder kein Signal empfangen wird. (Wenn die Blaudämpfungs-Funktion länger als 15 Minuten aktiviert ist, schaltet sich das Gerät automatisch aus. Fünf Minuten vor dem Ausschalten wird die verbleibende Zeit [in Minuten] in Abständen von einer Minute in der linken oberen Ecke der Bildwand angezeigt.)



4 Aufrufen der Anzeige auf der Bildwand (OSD)

■ Der Projektor kann das System des empfangenen Signals bestimmen.

Das folgende Bild wird angezeigt, wenn die OSD-Taste auf der Fernbedienung gedrückt wird.

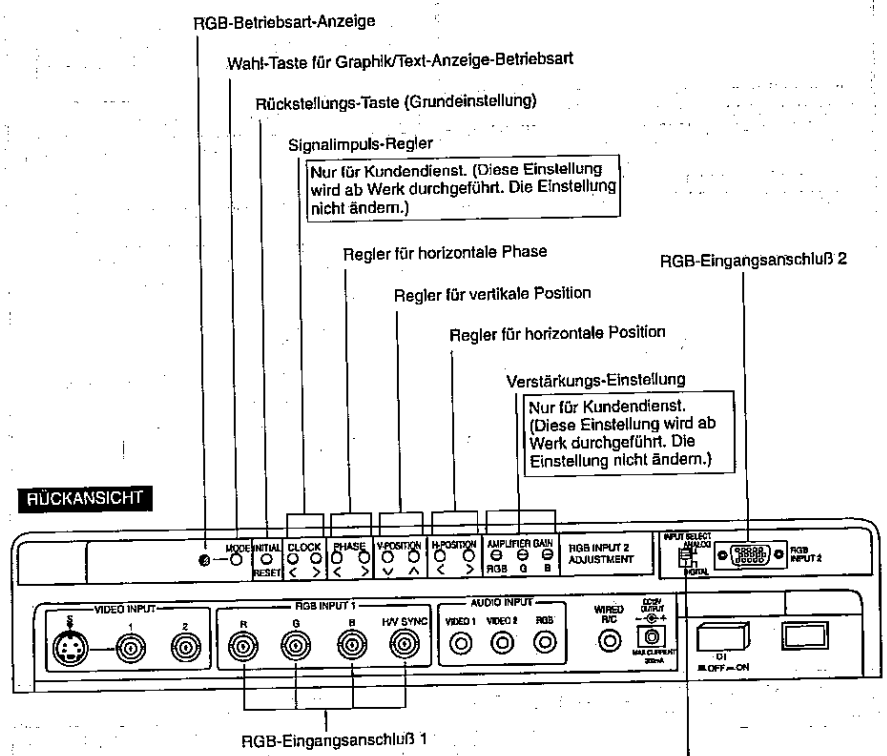


* Beim Empfang eines PAL-Signals.

Hinweis: Spiegel und durchlässige Bildwände für Projektionen können für die entsprechenden Anforderungen getrennt erworben werden.

Verwendung der RGB-Eingangbuchsen

Bezeichnungen der Teile und ihre Verwendung



***Einstellungsfunktionen**

H-POS (Einstellung der horizontalen Position)
- Wenn Bilder auf der Bildwand nach rechts oder links verschoben sind, können sie mit diesen Tasten auf die Mitte eingestellt werden.

V-POS (Einstellung der vertikalen Position)
- Wenn Bilder auf der Bildwand nach oben oder unten verschoben sind, können sie mit diesen Tasten auf die Mitte eingestellt werden.

PHASE (Einstellung der Signalphase)
- Bei der Darstellung von Text können diese Tasten dazu verwendet werden, Verzerrungen zu verringern oder den Kontrast zu verbessern.

CLOCK (Signaleinstellung)
- Nur für autorisiertes Wartungspersonal. Nicht für die Einstellung durch den Benutzer vorgesehen. (Diese Einstellung wurde ab Werk durchgeführt.)

AMPLIFIER GAIN (Einstellung der Verstärkungsfunktion)
- Ab Werk eingestellt. Im allgemeinen nur für autorisiertes Wartungspersonal und nicht für die Einstellung durch den Benutzer vorgesehen.
  Wenn jedoch die R&G-Signalpegel vom angeschlossenen Computer außerhalb der empfohlenen Werte liegen, können Farbabstufungen nicht genau wiedergegeben werden. Dadurch können Verzerrungen und Rauschen auftreten.

MODE•INITIAL RESET

Analog/Digital-Wahlschalter
Bei Anschluß an einen Computer mit digitalem Signalausgang ist sicherzustellen, daß der Schalter vor Anschluß des Signalkabels auf Digital eingestellt ist. (Der Schalter ist ab Werk auf Analog eingestellt.)

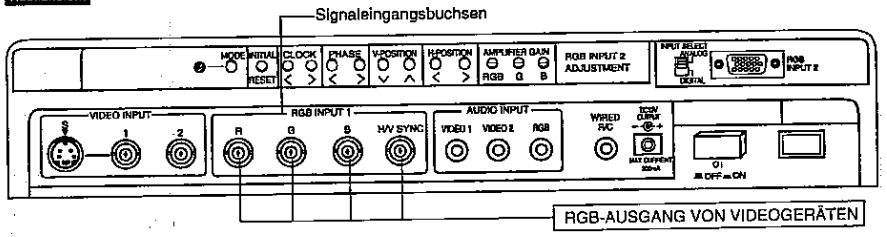
Hinweis: Den Schalter nicht auf Analog einstellen, wenn der Projektor an einen Computer mit digitalem Signalausgang angeschlossen ist.

1 Anschluß des LCD-Projektors an einen Computer

Hinweis: Abhängig vom Computermodell gibt es verschiedene Anzeige-Betriebsarten, von denen einige nicht mit diesem Projektor kompatibel sind. Vor dem Anschluß sollte die Kompatibilität von Terminal, Signalpegel, Polarität, Signalsteuerung usw. sichergestellt werden.

1. RGB-Eingangsbuchsen 1
- Vor dem Anschluß sollte sowohl der Projektor als auch das RGB-Ausgangsgerät ausgeschaltet werden.

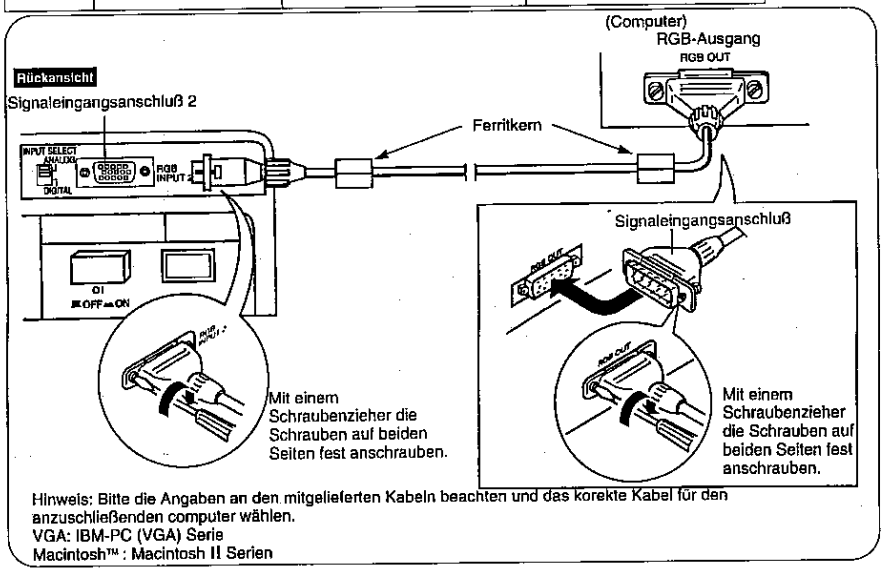
Rückansicht



2. RGB-Eingangsbuchsen 2
- Vor dem Anschluß sollte sowohl der Projektor als auch der Computer ausgeschaltet werden. Beim Anschluß an einen Computer mit digitalem Signalausgang ist sicherzustellen, daß der Analog/Digital-Wahlschalter auf Digital eingestellt ist.
- Die Stecker des Signalkabels (Sonderzubehör) am Signaleingangsanschluß des Projektors und am RGB-Ausgangsanschluß des Computers anschließen und die Schrauben auf beiden Seiten fest anschrauben.

Andere Signalkabel (getrennt erhältlich)

Modellname	Angeschlossener Computer	Singnalausgangsbuchse (am Computer)	Signaleingangsbuchse (am XG-3800E)
AN-C10BME	IMB-PC (VGA) Serie	15-pol-Mini-D-SUB-Verbinder	15-pol-Mini-D-SUB-Verbinder
AN-C10MCE	Macintosh II Serie	15-pol-D-SUB-Verbinder	

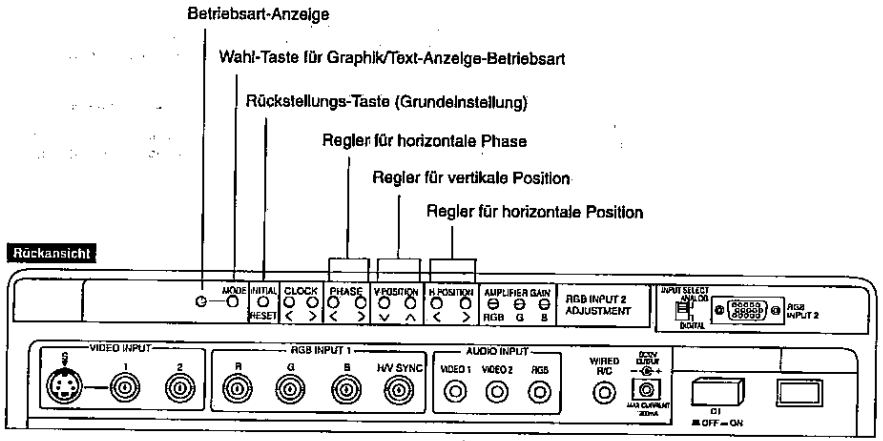


Hinweis: Bitte die Angaben an den mitgelieferten Kabeln beachten und das korekte Kabel für den anzuschließenden computer wählen.
VGA: IBM-PC (VGA) Serie
Macintosh™ : Macintosh II Serien

Verwendung der RGB-Eingangsbuchsen

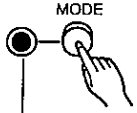
Einstellungen

* Die Einstellungen haben nur einen Einfluß auf die Signale des Signaleingangsanschlusses 2.



Umschalten der Graphik/Text-Anzeige-Betriebsart

Projektor



Fernbedienung

Anzeige leuchtet auf ..... 640 x *** (Punkte)
Anzeige leuchtet nicht auf ... 720 x *** (Punkte)

* In der Text-Betriebsart mit 720 x 350 und 720 x 400 (Punkte) können die Zeichen abhängig vom Text leicht verformt sein.

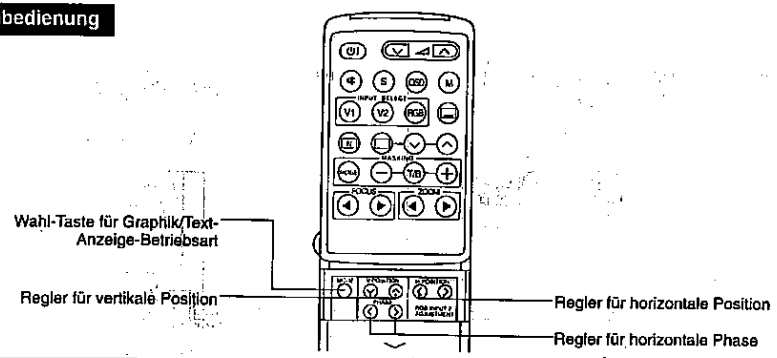
- Wenn der Videoeingang auf RGB-Betriebsart eingestellt ist, blinkt die Betriebsart-Anzeige, wenn kein Stecker am RGB-Eingangsanschluß 2 angeschlossen ist.
- Bei der Verwendung der VGA-Betriebsart wird durch Drücken der Taste die Auflösung geändert. Sie sollte entsprechend der Betriebsart des Computers eingestellt werden.
- Diese Taste drücken, wenn ein schlechtes Bild (vertikale Streifen) wiedergegeben wird, wenn der Projektor an einen Macintosh-Computer angeschlossen ist.

Rückstellung (Grundeinstellung)

Projektor

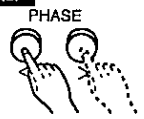
- Für die Grundeinstellung sollte die Taste bei angeschlossenem Computer und wiedergegebenem Bild gedrückt werden.
- Durch das Drücken dieser Taste werden die Grundeinstellungen für horizontale Position, vertikale Position, horizontale Phase und Signalimpuls eingestellt.

Fernbedienung

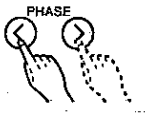


Einstellung der horizontalen Phase

Projektor



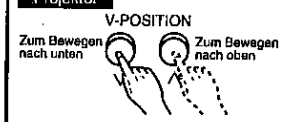
Fernbedienung



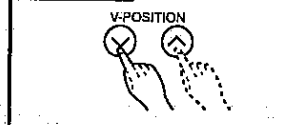
- Diese Tasten zum Verringern von Flimmern verwenden, wenn bei der Darstellung von Text Probleme auftreten, z.B. Flimmern oder schlechter Kontrast.

Einstellung der vertikalen Position

Projektor



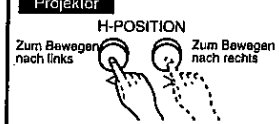
Fernbedienung



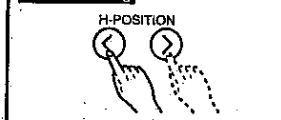
- Wenn das Bild zu hoch oder zu tief ist, sollten diese Tasten gedrückt werden, bis das Bild in der Mitte der Bildwand ist.

Einstellung der horizontalen Position

Projektor



Fernbedienung



- Wenn das Bild zu weit rechts oder zu weit links verschoben ist, sollten diese Tasten gedrückt werden, bis das Bild in der Mitte der Bildwand ist.

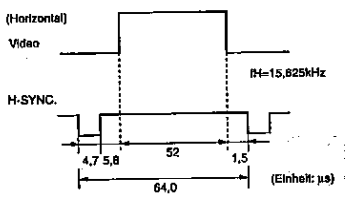
Hinweis:
1) Bei Wiedergabe von computer-Mustern mit Wiederholung jedes zweiten Punktes (Ziegelmuster, vertikale Streifen etc.) können durch Störungen zwischen den Bildpunkten in einzelnen Bildbereichen Flimmern, vertikale Streifen oder schlechter Kontrast auftreten. In solchen Fällen das Bild mit den Tasten für horizontale (<, >) und vertikale (∧, ∨) Einstellung so gut wie möglich einstellen.
2) Das unter 1) beschriebene Phänomen kann auch bei Umkehr-und Kehrbild-Wiedergabe auftreten. In diesem Falle ebenfalls mit den Tasten für horizontale (<, >) und vertikale (∧, ∨) Einstellung so gut wie möglich einstellen.
3) Die Wiedergabe von Computermustern mit Wiederholung jeder zweiten Zeile (horizontale Streifen) ist zu vermeiden. (Es treten starke Flimmerstörungen auf, durch die das Bild schwer erkennbar ist.)

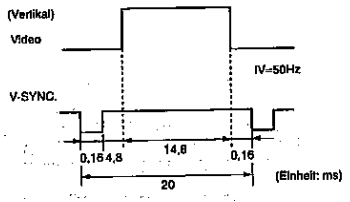
Verwendung der RGB-Eingangssignal

Eingangssignal (Empfohlenes Signal)

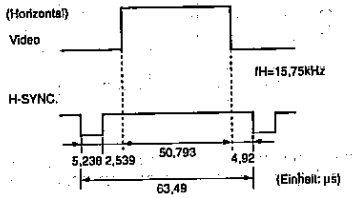
• RGB-Eingangsanschluß 1

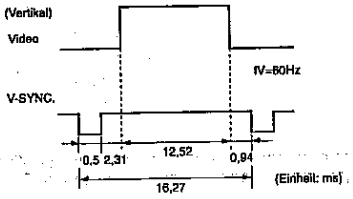
Impulsübersicht (PAL)





Impulsübersicht (NTSC)





RGB-H/V-Eingang

Signal	Entsprechender Wert	Testbedingungen
Primärer RGB-Farbsignaleingang	Unterschied zwischen Spitzen- und Austastpegel: 0,7 V (± 3 dB) (Hinweis 1)	Positives Signal
H/V-SYNC.-Eingang	Gemischtes Videosignal: Unterschied zwischen Weißpegel und Synchronisationspegel: 1 V (± 3 dB) Impedanz 75 Ohm (Hinweis 2) überblendeter Gleichstrombestandteil innerhalb 0 V und +2 V. Wenn das Signal an diesem Anschluß nur für Synchronisationszwecke verwendet wird, beträgt der Spitze-zu-Spitze-Pegel 0,3 V (-3, +10 dB).	Positives Video

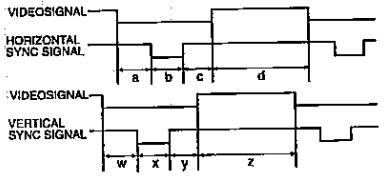
Hinweis 1: Bei monochromen Signalen sollte der Unterschied zwischen zwei primären Farbsignalen 0,5 dB nicht überschreiten. Die Spitzenwerte der primären Farbsignale sind die, die eine Anhebung auf einen weißen Luminanz-Signalspitzenpegel ausführen.
Hinweis 2: Die wiedergegebenen Signalspannungen sollten unter gleichen Bedingungen gemessen werden.

Eingangssignale (Empfohlene Signalimpulse)

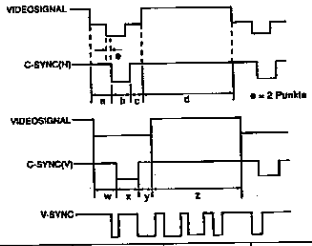
•RGB-Eingangsanschluß 2

Für IBM- und kompatible Computer

Eingangssignale: Die Videoausgangs-Signalimpulse von verschiedenen Videosignalen sind im folgenden als Referenz aufgeführt.



Für Apple Macintosh II-Serie

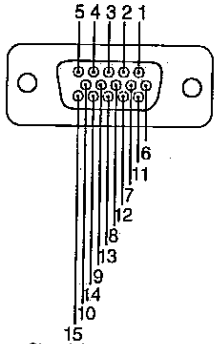


BETRIEBSART			IBM					IBM	IBM	Apple	
			VGA					EGA	CGA	Macintosh II Serie	
			TEXT		Graphik					13" Bildschirmgerät	
			720 Punkte		640 Punkte			640 Punkte	640 Punkte	640 Punkte	640 Punkte
			350 Zeilen	400 Zeilen	350 Zeilen	400 Zeilen	480 Zeilen	350 Zeilen	200 Zeilen	480 Zeilen	480 Zeilen
VIDEO	PEGEL		0,7 Vs-s 75 Ohm Belastung					TTL	TTL	max. 1 Vs-s 75 Ohm Belastung	max. 0,7 Vs-s 75 Ohm Belastung
	TYP		R+G+B					R+G+B I	R+G+B I	R+G+B C.SYNC	R+G+B C-SYNC
H SYNC	VORDERE SCHWARZSCHULTER	a Punkt	17		14			–6	95/103	64	78
	SYNC	b Punkt	108		96			80	64/48	64	62
	HINTERE SCHWARZSCHULTER	c Punkt	55		50			30	113/121	96	116
	VIDEOIMPULS	d Punkt	720		640			640	640	640	640
	1H (a+b+c+d)	Punkt	900		800			744	912	864	896
		µs	31,7774		31,7776			46,765	63,696	28,5714	28,595
	1 Punkt	ns	35,3092		39,7219			61,512	69,842	33,0688	31,914063
	1/H	kHz	31,4689		31,4688			21,851	15,700	35,0000	34,971149
	1 Punkt	MHz	28,322		25,175			16,257	14,318	30,2400	31,334149
	PEGEL		TTL	TTL	TTL			TTL	TTL	TTL	TTL
	SYNC-POLARITÄT	+/–	+	–	+	–	–	+	+	–	–
V SYNC	VORDERE SCHWARZSCHULTER	w H	38	13	38	13	11	1	25	3	3
	SYNC	x H	2	2	2	2	2	13	3	3	3
	HINTERE SCHWARZSCHULTER	y H	59	34	59	34	32	2	34	39	39
	VIDEOIMPULS	z H	350	400	350	400	480	350	200	480	480
	1V (w+x+y+z)	H	449	449	449	449	525	366	262	525	525
		ms	14,2681	14,2681	14,2681	14,2681	16,6832	16,750	16,688	15,00	15,00
	1/V	Hz	70,0866	70,0866	70,0863	70,0863	59,9405	59,702	59,92	66,67	66,67
	PEGEL		TTL	TTL	TTL	TTL	TTL	TTL	TTL		
	SYNC-POLARITÄT	+/–	–	+	–	+	–	–	+		

Nützliche Merkmale

1 Signaleingangsanschluß

■ Dieser Projektor ist mit einem 15-pol. D-Typ-Stecker für Signaleingang ausgestattet. Die Stiftbelegung des Signaleingangs ist folgendermaßen.



Signaleingangsstecker

(Analoger Eingang)

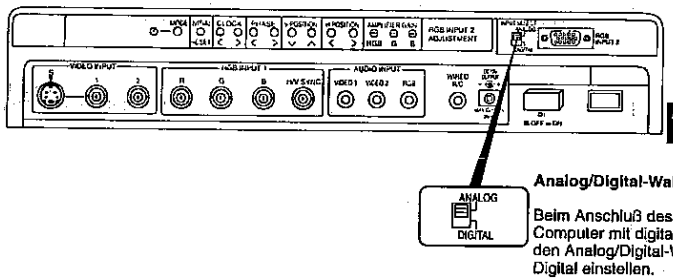
1. Video (rot)
2. Video (grün)
3. Video (blau)
4. Reservierter Eingang 1
5. Integriertes Sync.-Signal (nur Mac II)
6. Erdung (rot)
7. Erdung (grün)
8. Erdung (blau)
9. Erdung
10. Erdung
11. Erdung
12. Reservierter Eingang 2
13. Horizontales Sync.-Signal
14. Vertikales Sync.-Signal
15. Reservierter Eingang 3

(Digitaler Eingang)

1. Video (rot)
2. Video (grün)
3. Video (blau)
4. Videoeingang (Sub-Rot)
5. Reservierter Eingang
6. Erdung (rot)
7. Erdung (grün)
8. Erdung (blau)
9. Erdung
10. Erdung
11. Erdung
12. Videoeingang (Sub-Grün)
13. Horizontales Sync.-Signal
14. Vertikales Sync.-Signal
15. Videoeingang (Sub-Blau)

2 Hinweise zum Videosignaleingang

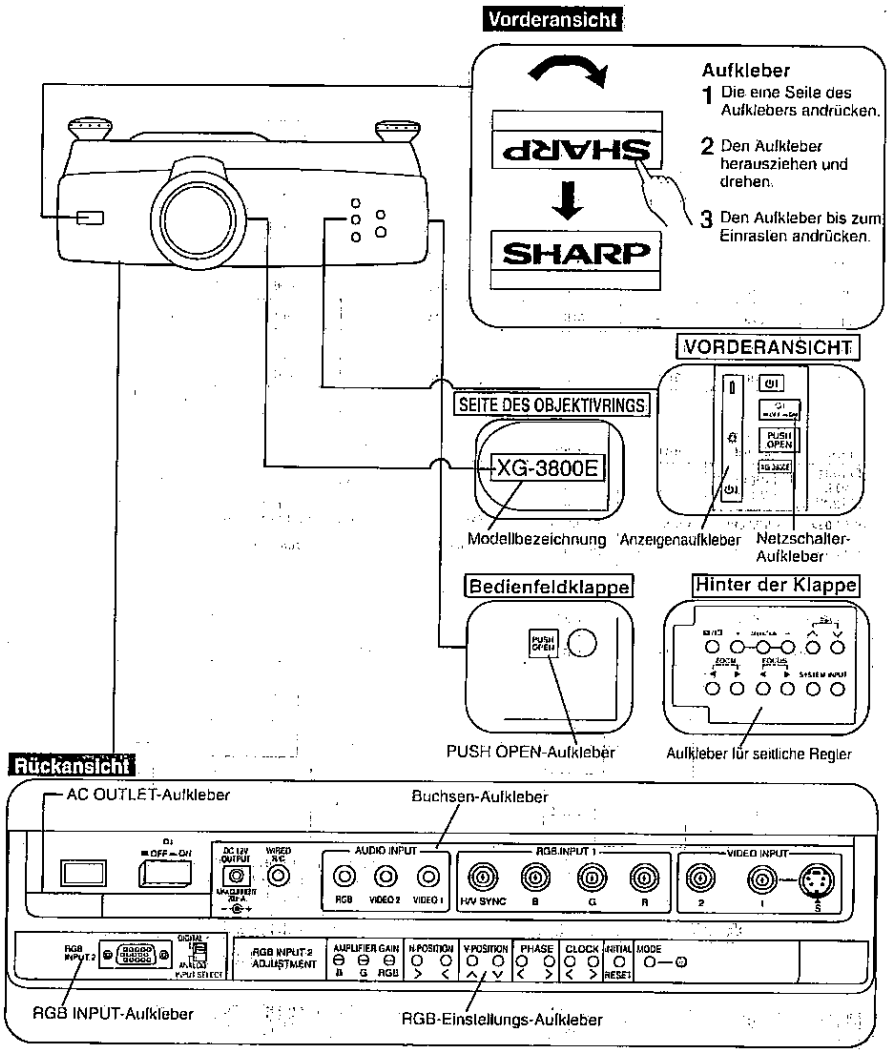
■ Beim Anschluß an einen Computer mit digitalem Signalausgang ist vor dem Anschluß des Signalkabels sicherzustellen, daß der Projektor ausgeschaltet und der Analog/Digital-Wahlschalter auf der Geräterückseite auf Digital eingestellt ist.


Anschlüsse auf der Geräterückseite
ANALOG
DIGITAL
Analog/Digital-Wahlschalter
Beim Anschluß des Projektors an einen Computer mit digitalem Signalausgang den Analog/Digital-Wahlschalter auf Digital einstellen.

- Bei Bildern mit besonderen Graustufen, fehlenden Bildpunkten usw. können Verfärbungen oder Rauschen auftreten.
- Wenn das Signal (Signalimpuls) des angeschlossenen Computers sich von den vorher auf Seite 28 beschriebenen empfohlenen Signalen unterscheidet, kann die Einstellung auf die Standard-Bildposition nicht möglich sein.

Korrektur des Aufklebers

■ Wenn der Projektor an einer Decke angebracht wird, sollte der Sharp-Aufkleber umgedreht und die mitgelieferten Aufkleber an den vorgesehenen Stellen angebracht werden.

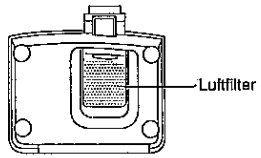


Wartung

Luftfilter

- Den Filter alle 100 Betriebsstunden reinigen. Wenn der Projektor an staubigen Orten verwendet wird, sollte der Filter öfter gereinigt werden.
- Sie können den Filter selbst auswechseln. Ersatzfilter sind beim zuständigen Händler erhältlich.

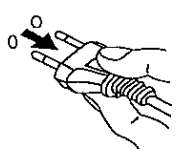
Ansicht von unten



Reinigung des Filters

1 Das Netzkabel von der Steckdose abtrennen

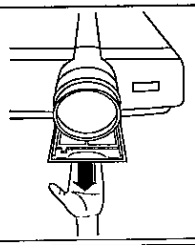
Das Netzkabel abtrennen.



In einigen Ländern kann der Netzstecker anders als der abgebildete aussehen.

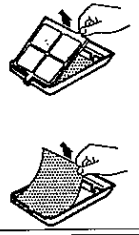
2 Die Filterabdeckung entfernen.

Die Filterabdeckung in der Vertiefung erfassen und herausziehen.



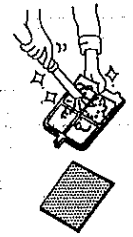
3 Den Luftfilter entfernen.

Den Vorsprung des Luftfilters erfassen und zum Entfernen herausziehen. Den Schwammfilter entfernen.



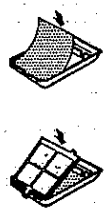
4 Den Luftfilter reinigen.

Den Staub vom Schwammfilter mit einem Staubsauger entfernen.



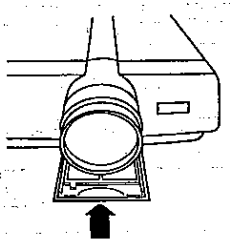
5 Den Luftfilter wieder einsetzen.

Den Schwammfilter und den Luftfilter wieder in die Filterabdeckung einsetzen.



- Den Filter nicht verbiegen.

6 Die Filterabdeckung wieder anbringen.



Hinweis:

- Sicherstellen, daß der Filter wieder richtig angebracht wird. Das Gerät kann nicht eingeschaltet werden, wenn der Filter falsch eingesetzt ist.

Lampe

- Die Projektorlampe hat eine begrenzte Lebensdauer.

Wenn die Lampe fast verbraucht ist, werden Bild und Farbe schlecht wiedergegeben. In diesem Fall sollte die Lampe durch den Kundendienst ausgetauscht werden.

Für das Austauschen der Projektorlampe ist technisches Verständnis notwendig. Sie sollte daher nur vom örtlichen Sharp-Händler oder dem Sharp-Kundendienst ausgewechselt werden.

Warnanzeigen

- Dieser Projektor ist mit Warnanzeigen ausgestattet, die AUFLEUCHTEN, wenn bestimmte Fehlfunktionen auftreten.
- Die folgenden Warnanzeigen sind am Projektor vorhanden: Temperaturwarnanzeige und Lampenaustausch-Anzeige.
- Wenn Fehlfunktionen auftreten, leuchtet die Temperaturwarnanzeige und die Lampenaustausch-Anzeige rot auf und das Gerät schaltet sich aus. Nach dem Ausschalten des Hauptnetzschalters folgendermaßen vorgehen.

Warnanzeigen	Ursache	Problem	Mögliche Lösung
Temperatur	Die Temperatur im Gerät ist zu hoch.	• Sind die Belüftungsöffnungen blockiert?	• Den Projektor an einem anderen Ort aufstellen.
		• Ist der Luftfilter verstopft?	• Den Luftfilter wie beschrieben reinigen.
		• Funktioniert der Kühlventilator? • Sind einige der internen Schaltkreise beschädigt?	• Den Projektor zur Wartung geben.
Projektorlampe	Die Projektorlampe leuchtet nicht auf.	• Ist die Projektorlampe verbraucht? • Sind die Schaltkreise der Projektorlampe beschädigt?	• Den Projektor zur Wartung geben.

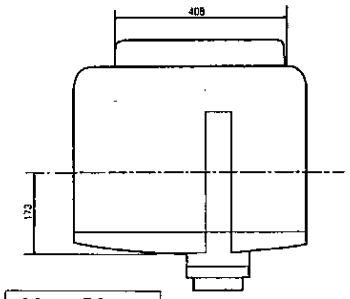
HINWEIS:

Wenn beim Betrieb des Projektors die Temperaturwarnanzeige AUFLEUCHTET, sollte bis zum Abkühlen des Projektors und bis zum ERLÖSCHEN der Warnanzeige gewartet werden, bevor der Projektor wieder eingeschaltet wird.
Wenn das Gerät ausgeschaltet und nach kurzer Zeit wieder eingeschaltet wird, kann die Lampenaustausch-Anzeige aufleuchten und das Einschalten des Gerätes verhindern. In diesem Fall sollte der Netzstecker von der Steckdose abgetrennt und erneut angeschlossen werden.

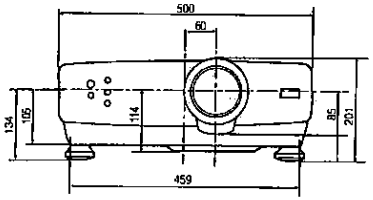
Bei Störungen

Kein Bild	• Der Projektor ist nicht an eine Steckdose angeschlossen. • Der Hauptnetzschalter (MAIN POWER) ist ausgeschaltet. • Der Helligkeitsregler (BRIGHT) (∨) ist auf minimale Position eingestellt.
Schwache oder verschwommene Farben	• Sind die Farbregler (COLOR) (∧) und (∨) richtig eingestellt?
Verschwommenes Bild	• Die Schärfe einstellen. • Der Projektionsabstand ist zu lang oder zu kurz für eine richtige Scharfstellung.
Aus dem Gehäuse kommen manchmal außergewöhnliche Geräusche.	• Wenn das Bild normal ist, entstehen Geräusche durch Verziehungen des Gehäuses durch Temperaturänderungen. Dies hat keinen Einfluß auf den Betrieb.
Die Wartungsanzeige leuchtet auf.	• Siehe "Wamanzeigen".

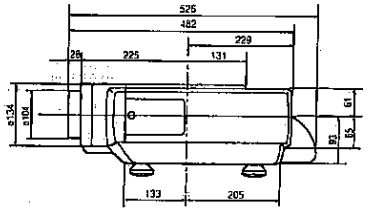
Abmessungen



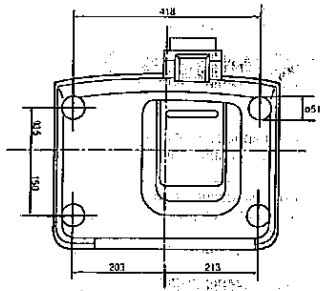
Von Oben



Vorderseite



Seite



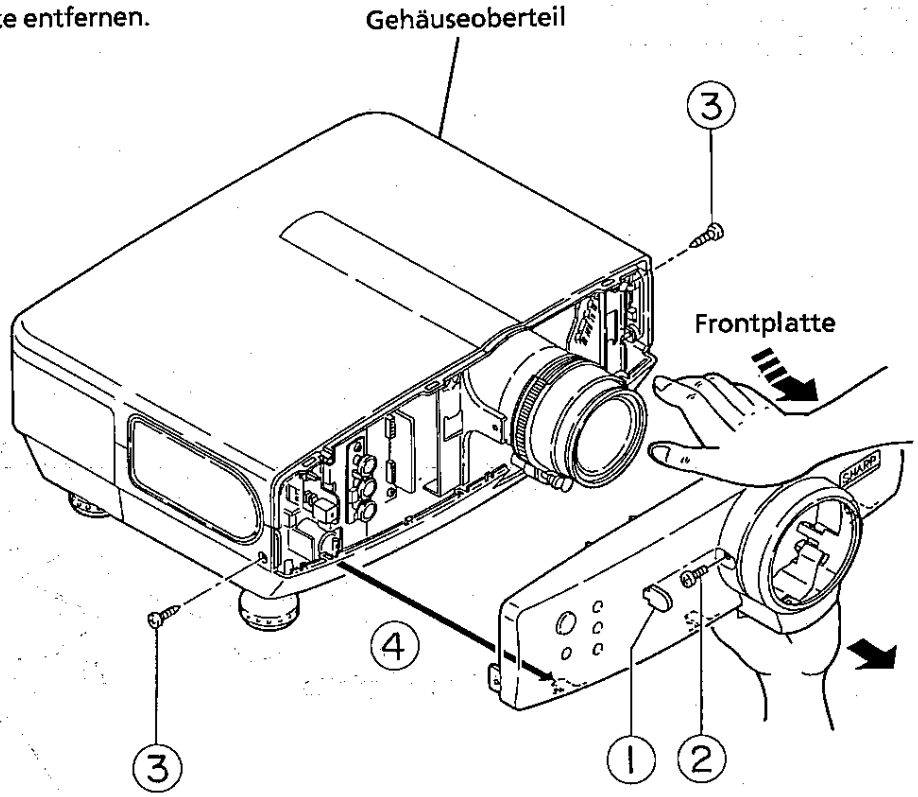
Unterseite

[Einheit: mm]

ENTFERNEN DER HAUPTTEILE

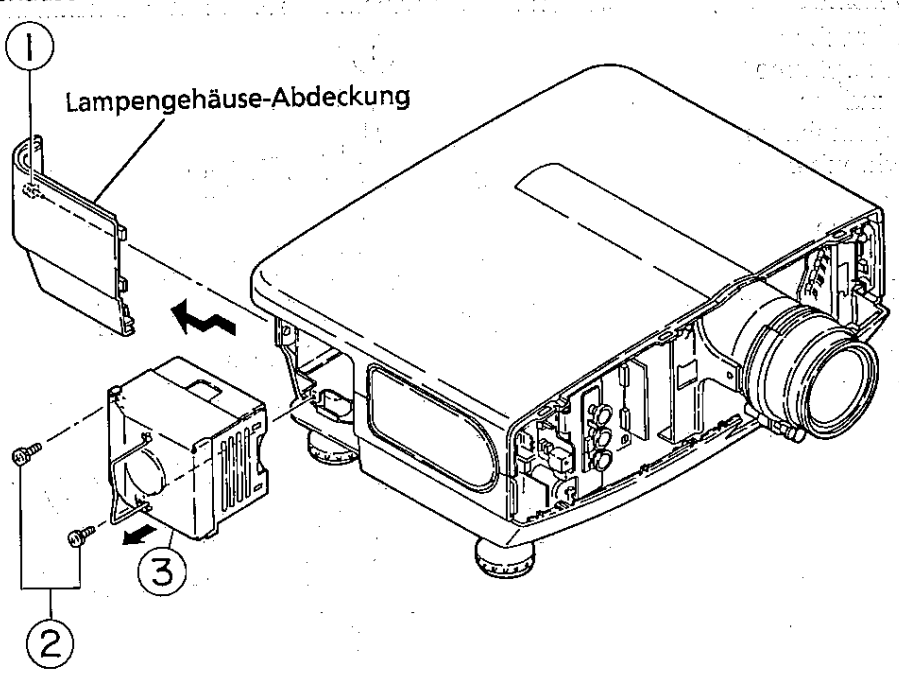
1. Entfernen der Frontplatte

1-1. Die Schraubenabdeckung entfernen.
1-2. Die Schraube von der Frontplatte entfernen.
1-3. Die zwei Schrauben von der Frontplatte entfernen.
1-4. Die Frontplatte entfernen.



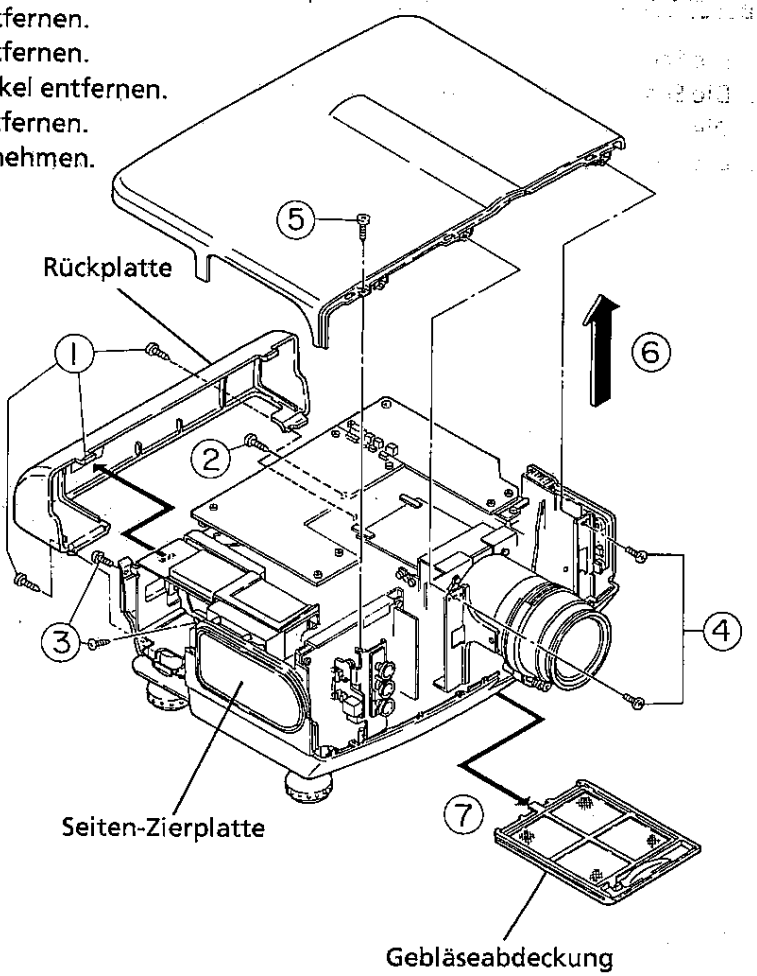
2. Entfernen des Lampengehäuses

2-1. Die Schraube von der Lampengehäuse-Abdeckung entfernen und die Abdeckung abnehmen.
2-2. Die zwei Schrauben vom Lampengehäuse entfernen.
2-3. Das Lampengehäuse herausnehmen.



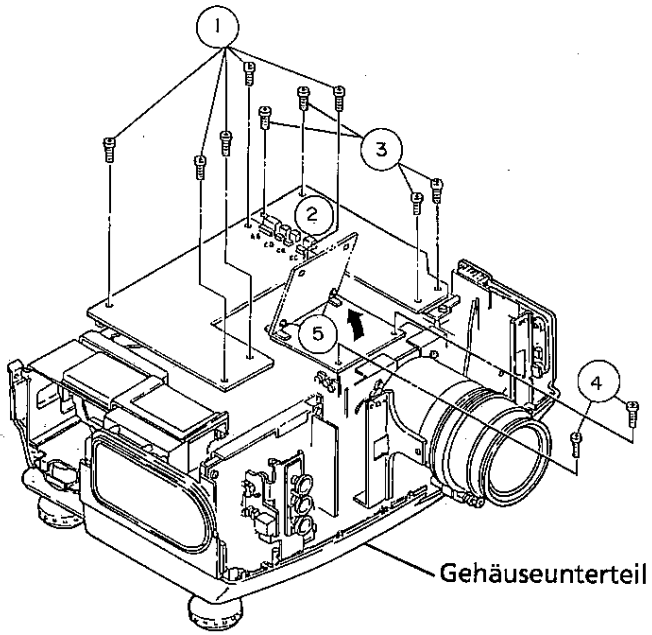
3. Entfernen des Gehäusedeckels, der Rückplatte und der Gebläseabdeckung

3-1. Die zwei Schrauben von der Rückplatte entfernen und die Rückplatte lösen.
3-2. Die Schraube vom Gehäusedeckel entfernen.
3-3. Die Schraube vom Gehäusedeckel entfernen.
3-4. Die zwei Schrauben vom Gehäusedeckel entfernen.
3-5. Die Schraube vom Gehäusedeckel entfernen.
3-6. Den Gehäusedeckel anheben und abnehmen.
3-7. Die Gebläseabdeckung entfernen.



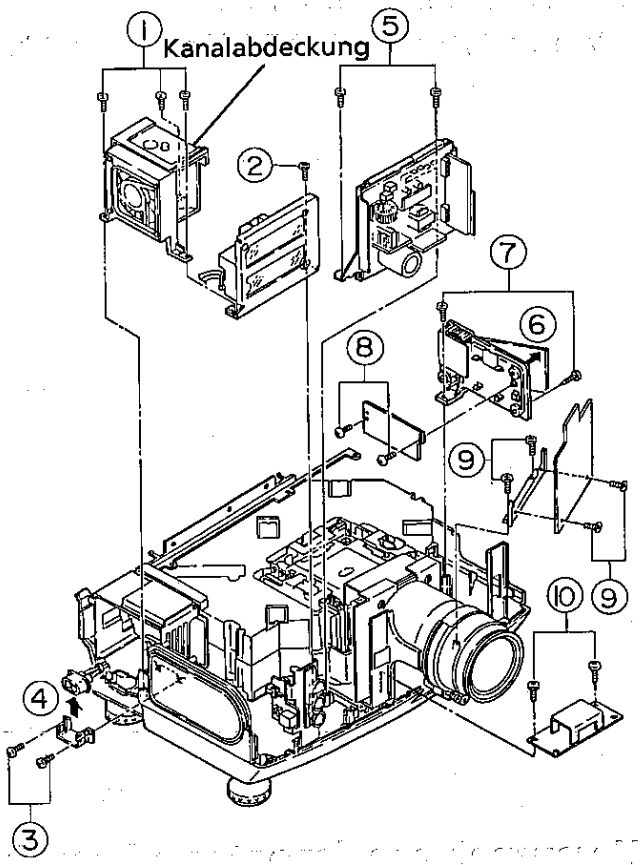
4. Herausnehmen der Hauptplatine, Steuerplatine 1 und Ausgangsplatine

4-1. Die fünf Schrauben von der Hauptplatine entfernen.
4-2. Die Steckverbinder "CC", "CE", "CD" und "GB" lösen und die Platine herausnehmen.
4-3. Die zwei Schrauben von der Steuerplatine 1 entfernen und die Platine herausnehmen.
4-4. Die zwei Schrauben von der Ausgangsplatine entfernen.
4-5. Die zwei Platinenhalter entfernen und die Ausgangsplatine herausnehmen.



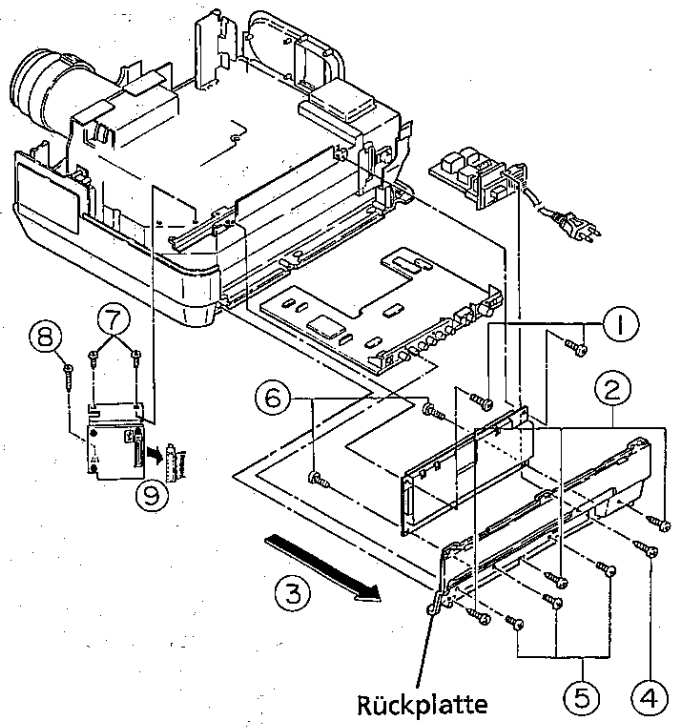
5. Herausnehmen der Platinen

5-1. Die drei Schrauben von der Gebläseeinheit entfernen und die Gebläseeinheit herausnehmen.
5-2. Die Schraube von der Vorschalteinheit entfernen und die Vorschalteinheit herausnehmen.
5-3. Die zwei Schrauben von der Lampenfassungshalterung entfernen.
5-4. Die Lampenfassung von der Halterung lösen.
5-5. Die zwei Schrauben vom Netzteil entfernen und das Netzteil herausnehmen.
5-6. Die Klappe der Bedienungseinheit öffnen.
5-7. Die zwei Schrauben von der Bedienungseinheit entfernen und die Einheit herausnehmen.
5-8. Die zwei Schrauben von der Steuerplatineneinheit entfernen und die Einheit herausnehmen.
5-9. Die zwei Schrauben von der Halterung der P/S-Wandlerplatine entfernen.
5-10. Die zwei Schrauben von der Verstärkerplatine entfernen und die Platine herausnehmen.



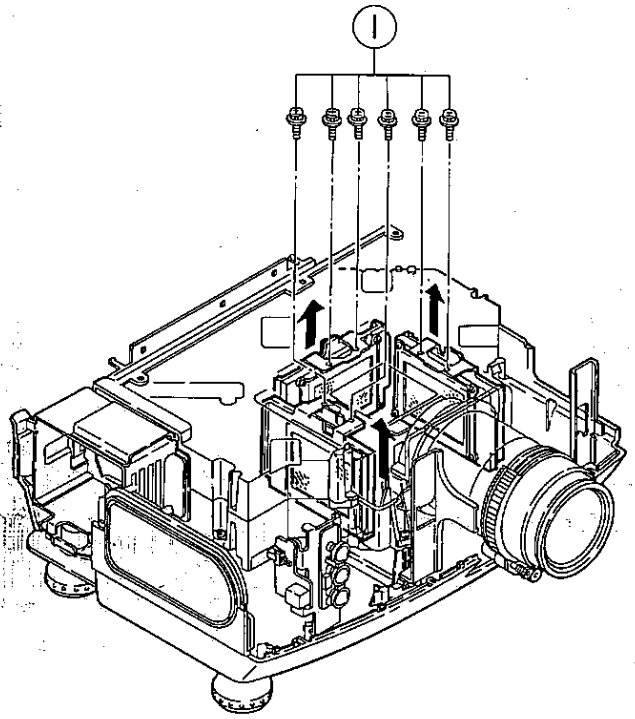
6. Herausnehmen der Nebenplatine, PC-Schnittstellenplatine und Steuerplatine 2

6-1. Die zwei Schrauben von der PC-Schnittstelleneinheit entfernen.
6-2. Die drei Schrauben von der Rückplatte entfernen.
6-3. Die Rückplatte abnehmen.
6-4. Die Schraube von der Netzeingangsplatinen entfernen.
6-5. Die drei Schrauben von der Nebenplatine entfernen und die Platine herausnehmen.
6-6. Die zwei Schrauben von der PC-Schnittstellenplatine entfernen und die Platine herausnehmen.
6-7. Die zwei Schrauben vom Platinenwinkelstück entfernen.
6-8. Eine Schraube vom Platinenwinkelstück entfernen.
6-9. Den Steckverbinder "VG" lösen und die Steuerplatine 2 herausziehen.



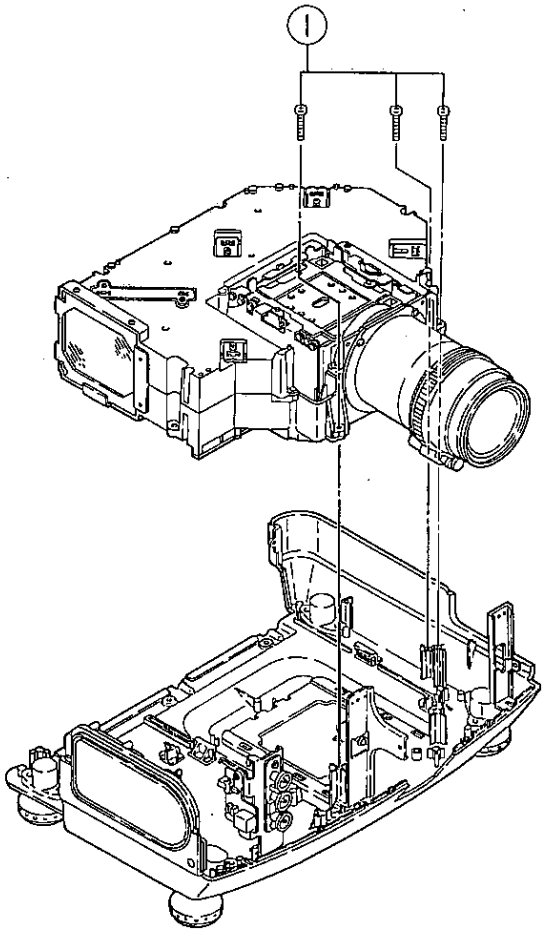
7. Auswechseln der LCD-Tafeln

7-1. Von der R-, G- und B-LCD-Tafel jeweils zwei Schrauben entfernen und die Tafeln herausnehmen.



8. Herausnehmen der optomechanischen Einheit

8-1. Die drei Schrauben von der optomechanischen Einheit entfernen und die Einheit herausnehmen.

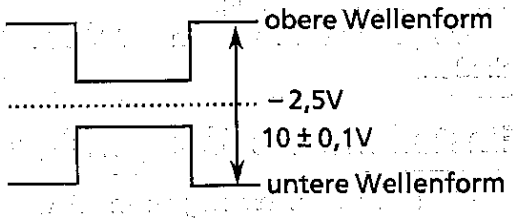


ELEKTRISCHE EINSTELLUNG

1. Einstellung der VCO-Oszillation: Steuerplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "MONOSKOPMUSTER" anzeigen. 2. Zwischen TP6001 und TP6002 einen Kurzschluß herstellen. 3. Den Kurzschluß zwischen TP6001 und TP6002 entfernen.	1. L6001 so einstellen, daß auf dem Bildschirm horizontale Synchronisierung erhalten wird. Dann den Kurzschluß entfernen.

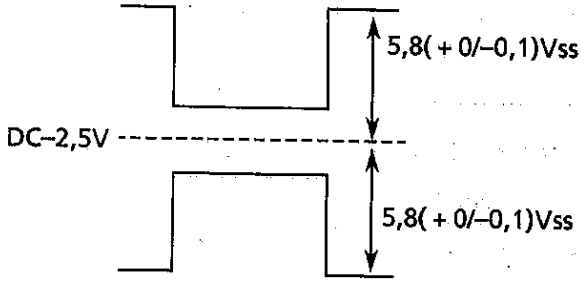
2. Grobeinstellung der Vorspannung: Hauptplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "MONOSKOPMUSTER" anzeigen. 2. Das Oszilloskop an TP1501 anschließen und die Wellenform beobachten. 3. Das Oszilloskop an TP1502 anschließen und die Wellenform beobachten. 4. Das Oszilloskop an TP1503 anschließen und die Wellenform beobachten.	1. R1680 und R1570 so einstellen, daß der Unterschied zwischen der Schwarzspitze und dem Schwarzboden 10 ± 0,1V mit dem – 2,5 V Pegel in der Mitte beträgt. 2. R1677 so einstellen, daß der Unterschied zwischen der Schwarzspitze und dem Schwarzboden 10 ± 0,1 V mit dem – 2,5 V Pegel in der Mitte beträgt. 3. R1683 so einstellen, daß der Unterschied zwischen der Schwarzspitze und dem Schwarzboden 10 ± 0,1 V mit dem – 2,5 V Pegel in der Mitte beträgt. 

3. Einstellung der Zählervorspannung : Steuerplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "MONOSKOPMUSTER" anzeigen. 2. Die Taste für Einstellung der Zählervorspannung an der Fernbedienung drücken. Nur die rote Farbe erscheint. 3. Die obige Taste erneut drücken. Nur die grüne Farbe erscheint. 4. Die obige Taste noch einmal drücken. Nur die blaue Farbe erscheint.	1. R6072 so einstellen, daß der schärfste Kontrast erhalten wird. 2. R6079 so einstellen, daß der schärfste Kontrast erhalten wird. 3. R6086 so einstellen, daß der schärfste Kontrast erhalten wird.

4. Einstellung der Spitzenabscheidung: Ausgangsplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "MONOSKOPMUSTER" anzeigen. 2. Mit der Fernbedienung die Helligkeit auf das Minimum reduzieren. 3. Das Oszilloskop an TP1501 anschließen und die Wellenform beobachten.	1. R1558 so einstellen, daß der obere Abscheidungspunkt 5,8 (+0/–0,1) Vss über dem Gleichstrom –2,5 V Pegel liegt. 2. R1556 so einstellen, daß der untere Abschneidungspukt 5,8 (+0/–0,1) Vss unter dem Gleichstrom –2,5 V Pegel liegt. 

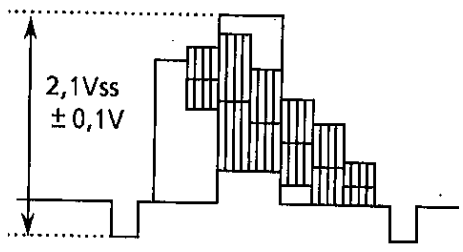
5-1. Einstellung des 4fsc Taktsignals (14,3 MHz): Nebenplatine

Einstellbedingungen	Einstellverfahren
1. Kein Signal eingeben. 2. Mit S2302 den erzwungenen N3.58 Systemmodus aufrufen. 3. Zwischen TP4002 undTP4003 einen Kurzschluß herstellen,um in den Freilaufzustand zu kommen. 4. Den Frequenzzähler an TP4001 anschließen.	1. C4050 so einstellen,daß der Frequenzzähler 14,31818 MHz ±80 Hz anzeigt.

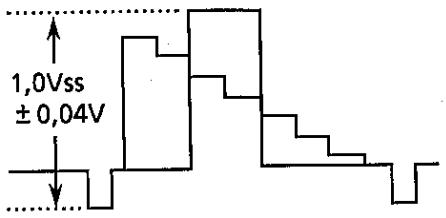
5-2. Einstellung des 4fsc Taktsignal (17,7 MHz): Nebenplatine

5. Mit S2302 den erzwungenen PAL Systemmodus aufrufen. 6. Den Kurzschluß zwischen TP4002 und TP4003 entfenen.	2. C4051 so einstellen, daß der Frequenzzähler 17,734475 MHz ±80 Hz anzeigt.

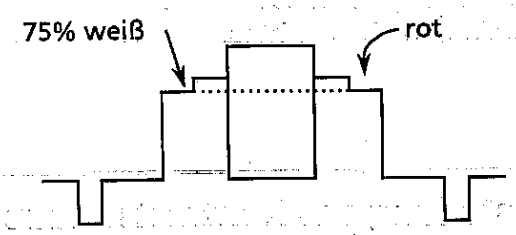
6. Einstellung des Videosignalpegels: Nebenplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "FARBBALKEN" anzeigen. 2. Das Oszilloskop an TP4004 anschließen und die Wellenform beobachten.	1. R4059 so einstellen, daß der Unterschied zwischen der Weißsyncspitze und der Schwarzsyncspitze 2,1 ±0,1 Vss beträgt. 

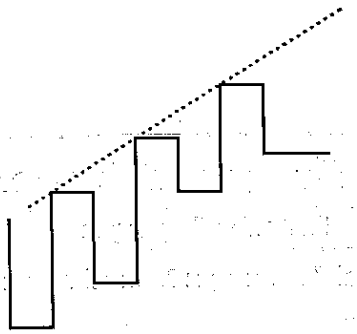
7. Einstellung des Y-Signalpegels: Nebenplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "FARBBALKEN" anzeigen. 2. Das Oszilloskop an TP4005 anschließen und die Wellenform beobachten.	1. R4037 so einstellen, daß der Unterschied zwischen der Weißsyncspitze und der Schwarzsyncspitze 1,0 ± 0,04 Vss beträgt. 

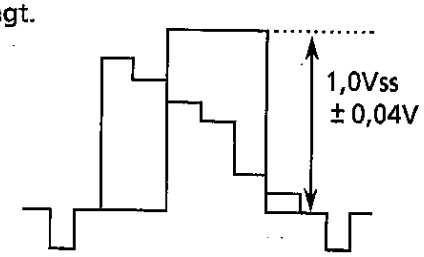
8. Einstellung der Farbdichte: Nebenplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "FARBBALKEN" anzeigen. 2. Das Oszilloskop an TP803 anschließen und die Wellenform beobachten.	1. R817 so einstellen, 75% Weißpegel und Rotpegel gleich sind. 

9. Einstellung des Farbtons: Nebenplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "FARBBALKEN" anzeigen. 2. Das Oszilloskop an TP805 anschließen und die Wellenform beobachten.	1. R890 so einstellen, daß die Wellenform des B-Y Signals linear nach oben geht. 

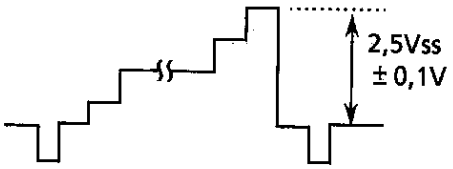
10. Einstellung des Y-Pegels: Nebenplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "FARBBALKEN" anzeigen. 2. Das Oszilloskop an TP801 anschließen und die Wellenform beobachten.	1. R878 so einstellen, daß die Wellenformamplitude maximal wird. 2. R487 so einstellen,daß der Unterschied zwischen der Schwarzabhebung und dem Weißpegel 1,0 ± 0,04 Vss beträgt. 

11. Einstellung der automatischen Verstärkungsregelung: Nebenplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "FARBBALKEN" anzeigen. 2. Das Oszilloskop an TP801 anschließen und die Wellenform beobachten.	1. R878 so einstellen, daß der Unterschied zwischen der Schwarzabhebung und dem Weißpegel (in der oben erwähnen Wellenform) 0,7 ± 0,02 Vss beträgt.

12. Einstellung des Kontrasts: Hauptplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "10stufiges Monochrommuster" anzeigen. 2. Das Oszilloskop an TP1401 anschließen und die Wellenform beobachten.	1. R1491 so einstellen, daß der Unterschied zwischen der Schwarzabhebung und dem Weißpegel 2,5 ± 0,1 Vss beträgt. 

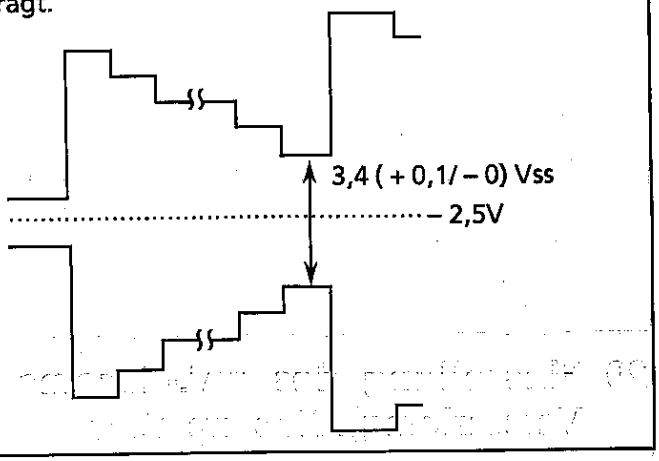
13. Einstellung des Nebenkontrasts: Hauptplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "10stufiges Monochrommuster" anzeigen. 2. CH1 und CH2 des Oszilloskops an TP1401 bzw. TP1403 anschließen. 3. Das CH2-Signal invertieren und die Wellen CH1 und CH2 im ADD-Modus hinzufügen. 4. Anschließend CH2 des Oszilloskops an TP1402 anschließen. 5. Das CH2-Signal invertieren und die Wellen CH1 und CH2 im ADD-Modus hinzufügen.	1. R1405 so einstellen, daß die Wellenform auf dem Oszilloskopschirm so gerade wie möglich wird. 2. R1401 so einstellen, daß die Wellenform auf dem Oszilloskopschirm so gerade wie möglich wird.

14. Gamma-Einstellung: Hauptplatine

Einstellbedingungen	Einstellverfahren
1. Das Voltmeter zwischen TP1407 und der GND-Klemme anschließen. 2. Das Voltmeter zwischen TP1408 und der GND-Klemme anschließen.	1. R1714 so einstellen, daß die Spannung an TP1407 Gleichstrom 5,50 ± 0,01 V beträgt. 2. R1692 so einstellen, daß die Spannung an TP1408 Gleichstrom 4,90 ± 0,01 V beträgt.

15. Einstellung der Vorspannung: Hauptplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "10stufiges Monochrommuster" anzeigen. 2. Das Oszilloskop an TP1501 anschließen und die Wellenform beobachten.	1. R1680 und 1570 so einstellen, daß der Unterschied zwischen der Weißspitze und dem Weißboden 3,4 (+0,1/−0) Vss mit dem −2,5 V Pegel in der Mitte beträgt. 

16. Einstellung der Nebenvorspannung: Hauptplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "10stufiges Monochrommuster" anzeigen. 2. CH1 und CH2 des Oszilloskops an TP1501 bzw. TP1502 anschließen. 3. Das Oszilloskop in den ADD-Bereich schalten. 4. Anschließend CH2 an TP1503 anschließen. 5. Das Oszilloskop in den ADD-Bereich schalten.	1. R1677 so einstellen, daß die Wellenform auf dem Oszilloskopschirm so gerade wie möglich wird. 2. R1683 so einstellen, daß die Wellenform auf dem Oszilloskopschirm so gerade wie möglich wird.

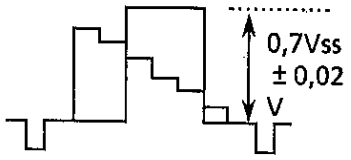
17. Einstellung der horizontalen Mitte: Steuerplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "10stufiges Monochrommuster" anszeigen.	1. R6045 so einstellen, daß das Bild zur vertikalen Mittellinie symmetrisch ist.

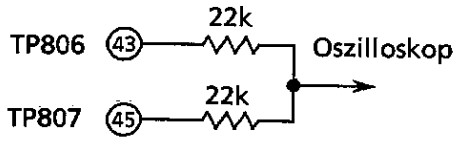
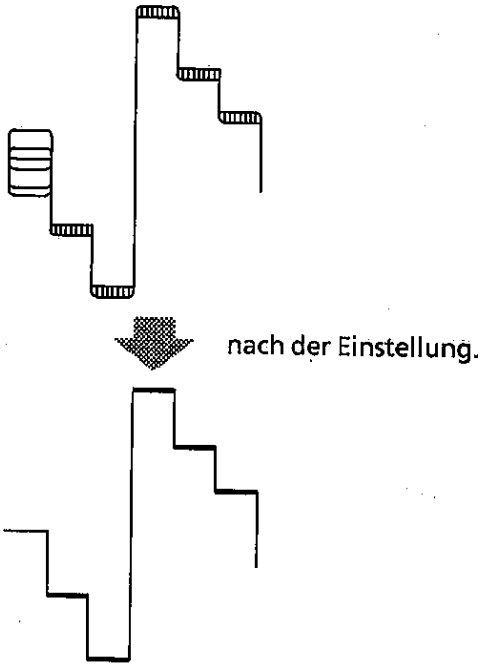
18. Einstellung der Freilauffrequenz: Scanwandlerplatine

Einstellbedingungen	Einstellverfahren
1. Eine Verbindung zwischen TP1001 und der GND-Klemme herstellen. 2. Den Frequenzzähler zwischen TP1002 und der GND-Klemme anschließen.	1. L1001 so einstellen, daß der Frequenzzähler 15,625 ± 0,01 kHz anzeigt.

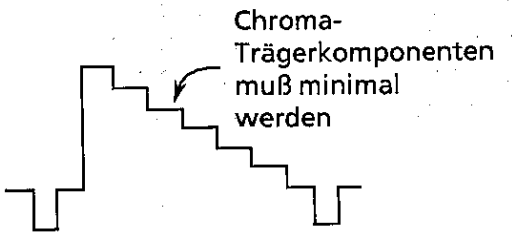
19. Einstellung des PAL/SECAM Y-Pegels: Scanwandlerplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "PAL-FARBBALKEN" anzeigen. 2. Das Oszilloskop an TP1404 anschließen.	1. R1128 so einstellen, daß der Unterschied zwischen der Schwarzabhebung und dem Weißpegel 0,7 ± 0,02 Vss beträgt. 

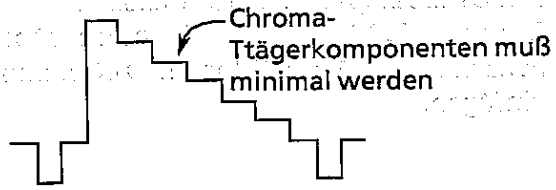
20. Einstellung des PAL-Chroma (T803: 1H-DL Phase, R812: 1H-DL Verstärkung): Nebenplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "PAL-FARBBALKEN" anzeigen. 2. Das Oszilloskop wie unten gezeigt anschließen. 	1. T803 und R812 so einstellen, daß die unten dargestellte Wellenform erhalten wird. 

21. Einstellung des Chroma-Traps: Nebenplatine

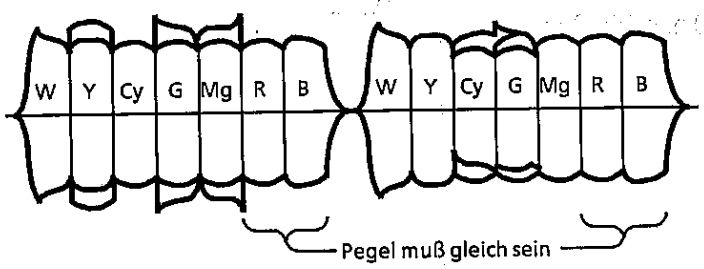
Einstellbedingungen	Einstellverfahren
1. Das Signal "PAL-FARBBALKEN" anzeigen. 2. Das Oszilloskop an TP401 anschließen.	1. T401 so einstellen, daß die Chroma-Trägerkomponente minimal wird. 

22. Einstellung des SECAM-Traps (T402): Nebenplatine

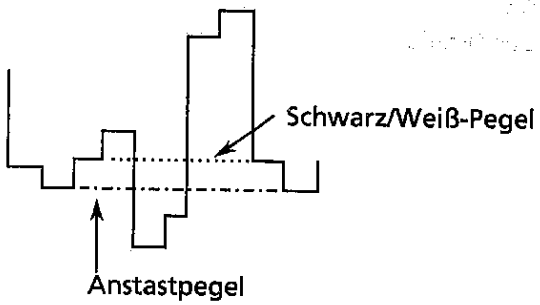
Einstellbedingungen	Einstellverfahren
1. Das Signal "SECAM-FARBBALKEN" anzeigen. 2. Das Oszilloskop an TP401 anschließen.	1. T402 so einstellen, daß die Chroma-Trägerkomponente minimal wird. 

23. Einstellung des SECAM-Glockenfilters (T801): Nebenplatine

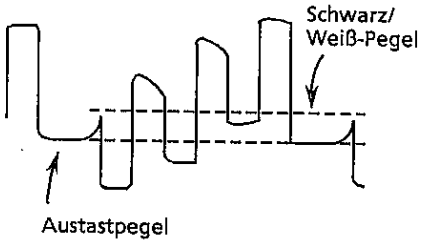
Einstellbedingungen	Einstellverfahren
1. Das Signal "SECAM-FARBBALKEN" anzeigen. 2. Das Oszilloskop an TP808 anschließen.	1. T801 so einstellen, daß die unten dargestellte Wellenform erhalten wird.



24. SECAM R-Y Unterscheidungsvermögen (T804): Nebenplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "SECAM-FARBBALKEN" anzeigen. 2. Das Oszilloskop an TP807 anschließen. 3. Einen 0,001 μF Kondensator zwischen TP804 und der GND-Klemme einfügen, um Störgeräusche zu unterdrücken.	 1. T805 so einstellen, daß der Austastpegel und der Schwarz/Weiß-Pegel gleich sind.

25. SECAM B-Y Unterscheidungsvermögen (T805): Nebenplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "SECAM-FARBBALKEN" anzeigen. 2. Das Oszilloskop an TP806 anschließen. 3. Einen 0,001 μF Kondensator zwischenTP806 und der GND-Klemme einfügen.	1. T804 so einstellen, daß der Austastpegel und der Schwarz/Weiß-Pegel gleich sind. 

26. SECAM ID Unterscheidungsvermögen (T802): Nebenplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "SECAM-FARBBALKEN" anzeigen. 2. Das Oszilloskop an TP809 anschließen.	1. T802 so einstellen, daß der Gleichstrompegel maximal wird.

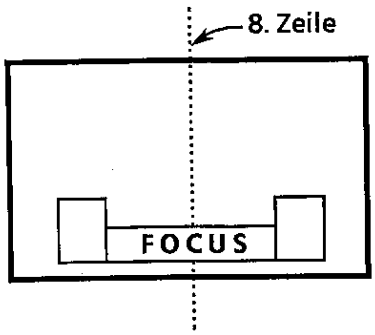
27. Einstellung des PAL/SECAM-Nebenkontrasts: Nebenplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "PAL MONOSKOPMUSTER" anzeigen. 2. CH1 und CH2 des Oszilloskops an TP1404 bzw. TP1405 anschließen. 3. Das CH2-Signal invertieren und die Wellen CH1 und CH2 im ADD-Modus hinzufügen. 4. Anschließend CH2 des Oszilloskops an TP1406 anschließen. 5. Das CH2-Signal invertieren und die wellen CH1 und CH2 im ADD-Modus hinzufügen.	1. R1441 so einstellen, daß die Wellenform auf dem Oszilloskopschirm so gerade wie möglich wird. 2. R1445 so einstellen, daß die Wellenform auf dem Oszilloskopschirm so gerade wie möglich wird.

28. Einstellung der PAL/SECAM-Horizontalmitte: Nebenplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "PAL MONOSKOPMUSTER" anzeigen.	1. R614 so einstellen, daß das Bild symmetrisch zur vertikalen Mittellinie wird.

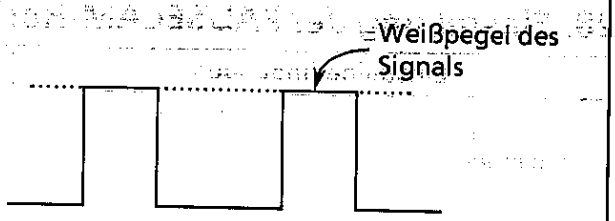
29. Einstellung der Bildschirm-Zeichenposition: Hauptplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "FADENKREUZMUSTER" anzeigen.	1. T2001 so einstellen, daß das Zeichen in die unten dargestellte Position kommt. 

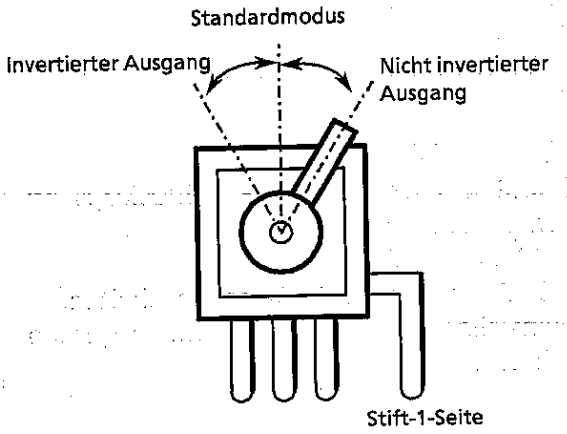
30. Einstellung der Weißbalance: Nebenplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "MONOSKOPMUSTER" anzeigen.	1. R1677 (R Nebenvorspannung) und (R1683 (B Nebenvorspannung) einstellen und die Weißbalance visuell überprüfen.

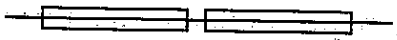
31. Einstellung des Zeichenpegels: Hauptplatine

Einstellbedingungen	Einstellverfahren
1. Das Signal "FARBBALKEN" anzeigen. 2. Das Oszilloskop an TP1401 anschließen.	1. R1489 so einstellen, daß der Weißpegel und der Zeichenpegel gleich werden. 

32. R/G/B-B-Versatz (Einstellung der Invertiert- und Nicht-Invertiert-Mittenveorspannung): S1601, R1609 (R), R1610 (G), R1601 (B)

Einstellbedingungen	Einstellverfahren
1. In den RGB-Modus schalten. 2. Den Standardmodus ohne Eingangssignal einstellen. 3. Den Wartungsschalter (S6003) für nicht-invertierten Eingang zur Stift-1-Seite stellen. 4. Das Digitalvoltmeter an TP1601 und TP1502 anschließen. 5. Den Wartungsschalter (S6003) in die Position des invertierten Ausgangs (gegenüber der Stift-1-Seite) stellen.  	**● Einstellung des R-Versatzes** 1. Die Spannung an TP1601 (Mitte von R1570) messen und als Bezug verwenden. Die Spannung an TP1502 (R1 Ausgang) ablesen. 2. R1612 so einstellen, daß die Spannung an TP1601 und TP1502 gleich wie die vorherige Ablesung (Absolutspannung) werden. (Fehler ± 5 mV) **● Einstellung des G-Versatzes** 1. Die Spannung an TP1601 (Mitte von R1570) messen und als Bezug verwenden. Die Spannung an TP1501 (G1 Ausgang) ablesen. 2. R1613 so einstellen, daß die Spannung an TP1601 und TP1501 gleich wie die vorherige Ablesung (Absolutspannung) werden. (Fehler ± 5 mV) **● Einstellung des B-Versatzes** 1. Die Spannung an TP1601 (Mitte von R1570) messen und als Bezug verwenden. Die Spannung an TP1503 (B1 Ausgang) ablesen. 2. R1614 so einstellen, daß die Spannung an TP1601 und TP1503 gleich wie die vorherige Ablesung (Absolutspannung) werden. (Fehler ± 5 mV) Den Wartungsschalter (S6003) zurück in die Mittenposition (Standardmodus) bringen.

33. Einstellung der R/G/B-Verstärkung: R5600 (R), R5599 (G), R5598 (B)

Einstellbedingungen	Einstellverfahren
1. Den RGB-Modus abrufen. 2. Vom Personal-Computer das "Graustufen"-Signal zuführen. (Für das Eingabeverfahren siehe das beigefügte Blatt.)	**● Einstellung der R-Verstärkung** 1. CH1 und CH2 des Doppelstrahl-Oszilloskops an TP1502 bzw. 1502 anschließen. (1,0 V/Tlg., 10-12 μs/Tlg.) 2. Das obige Oszilloskop in den ADD-Bereich schalten. 3. R5600 so einstellen, daß die Wellenform so gerade wie möglich wird.  **● Einstellung der G-Verstärkung** 1. CH1 und CH2 des Doppelstrahl-Oszilloskops an TP1504 bzw. 1505 anschließen. (1,0 V/Tlg., 10-12 μs/Tlg.) 2. Das obige Oszilloskop in den ADD-Bereich schalten. 3. R5599 so einstellen, daß die Wellenform so gerade wie möglich wird. **● Einstellung der B-Verstärkung** 1. CH1 und CH2 des Doppelstrahl-Oszilloskops an TP1503 bzw. 1506 anschließen. (1,0 V/Tlg., 10-20 μs/Tlg.) 2. Das obige Oszilloskop in den ADD-Bereich schalten. 3. R5598 so einstellen, daß die Wellenform so gerade wie möglich wird.

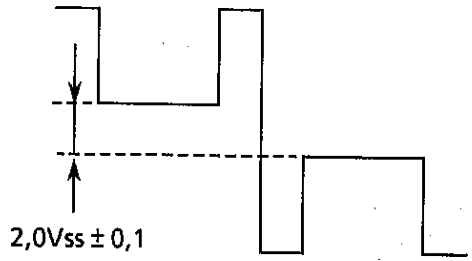
● Graustufen-Programm für Personal-Computer

IBM-PC

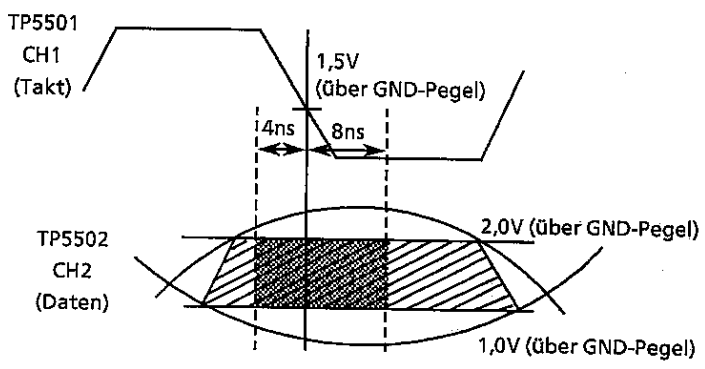
```
100  DEFINT A-Z
110  OPTION BASE 1
120  DIM PRO2 (12)
130  I = 0:J = 0:K = 0:P = 0:Q = 0
140  '
150  SCREEN 0, 1:COLOR 0, 0:WIDTH 40:CLS
160  FOR I = 0 TO 15
170  FOR J = 1 TO 23:LOCATE J, I*2 + 1
180  COLOR I, I:PRINT CHR$ (219);CHR$ (219);
190  NEXT J, I
200  GOSUB 610
210  A$ = ""
220  A$ = INKEY$
230  IF A$ = "" THEN 210
240  GOSUB 930
250  P = 15:GOSUB 710
260  A$ = ""
270  A$ = INKEY$
280  IF A$ = "" THEN 260
290  P = 12:GOSUB 710
300  A$ = ""
310  A$ = INKEY$
320  IF A$ = "" THEN 300
330  P = 11:GOSUB 710
340  A$ = ""
350  A$ = INKEY$
360  IF A$ = "" THEN 340
370  GOSUB 820
380  A$ = ""
390  A$ = INKEY$
400  IF A$ = "" THEN 380
410  GOSUB 930
420  COLOR 7, 0
430  WIDTH 80
440  CLS
450  END
460  '
470  DATA &H50
480  DATA &H53
490  DATA &H51
500  DATA &H52
510  DATA &HB8, &H10, &H10
520  DATA &HBB, &H00, &H00
530  DATA &HB9, &H00, &H00
540  DATA &HBA, &H00, &H00
550  DATA &HCD, &H10
560  DATA &H5B
570  DATA &H59
580  DATA &H5D
590  DATA &H58
600  DATA &HcB, &H90
610  '
620  Q = VARPTR (PRO2 (1))
630  RESTORE 470
640  FOR I = 0 TO 23
650  READ J
660  POKE (Q + I), J
670  NEXT I
680  SUB2 = VARPTR (PRO2 (1))
690  CALL SUB2
700  RETURN
710  '
720  Q = VARPTR (PRO2 (1))
730  POKE (Q + 11), 0:POKE (Q + 12),
     0:POKE (Q + 15), 0
740  FOR I = 0 TO 15
750  Q = VARPTR (PRO2 (1))
760  POKE (Q + 8), I
770  POKE (Q + P), I*4.2
780  SUB2 = VARPTR (PRO2 (1))
790  CALL SUB2
800  NEXT I
810  RETURN
820  '
830  Q = VARPTR (PRO2 (1))
840  POKE (Q + 11), 0:POKE (Q + 12),
     0:POKE (Q + 15), 0
850  FOR I = 0 TO 15
860  Q = VARPTR (PRO2 (1))
870  POKE (Q + 8), I
880  POKE (Q + 11), I*4.2:POKE (Q + 12),
     I*4.2:POKE (Q + 15), I*4.2
890  SUB2 = VARPTR (PRO2 (1))
900  CALL SUB2
910  NEXT 1
920  RETURN
930  '
940  FOR I = 0 TO 15
950  PALETTE I, I
960  NEXT
970  RETURN
```

RUN	Rotstufen
SPACE	Grünstufen
SPACE	Blaustufen
SPACE	Graustufen

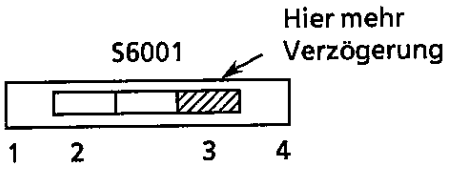
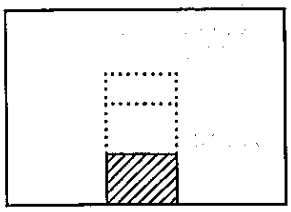
34. Einstellung der R/G/B-Nebenvorspannung (Weißbalance): R5585 (R), R5587 (G), R5614 (B)

Einstellbedingungen	Einstellverfahren
1. Das R/G/B-Modus-Nur-Weiß-Signal zuführen. 2. Das Oszilloskop an TP1502 anschließen und die Wellenform beobachten. 3. Den obigen Schritt 2 für the G-und B-Signale wiederholen. G: TP1501 B: TP1503	1. R5646 so einstellen, daß der Unterschied zwischen der Weißspitze und dem Weißboden 2,0 (+ 0,1/-0) Vss beträgt. G: R5647 B: R5648  2. Die Weißbalance visuell überprüfen. Wenn sie nicht der Vorgabe entspricht, eine Neueinstellung mit R5585 und R5614 durchführen.

35. Einstellung der Taktverzögerung (S6002)

Einstellbedingungen	Einstellverfahren
1. Das Signal "Karomuster" zuführen. 2. Die RESET-Taste an der PC-Schnittstellenplatine drücken. Mit dem PHASE-Regler das Karomuster so deutlich wie möglich einstellen. 3. CH1 und CH2 des Oszilloskops an TP5501 und TP5501 anschließen. (Masse TP5503) (Über 100 MHz, Meßfühler weniger als 20 pF, CHOP Modus, 1 V/Tlg., 10 ns/Tlg,)	1. S6002 so einstellen, daß die Anforderungen in der nachstehenden Abbildung erfüllt werden.  Bedingung: Der schraffierte, trapezförmige Bereich wird durch das CH2-Datensignal und den 1,0-V-sowie den 2,0-V-Pegel erzeugt. Der schattierte, rechteckige Bereich wird durch die Vorderkante des CH1-Taktsignals im 4-ns-und 8-ns-Bereich erzeugt (bei 1,5V). Der schattierte Bereich muß sich im Innern des schrafferten Bereichs befinden.

36. Einstellung der H-Rückstellverzögerung (S6001)

Einstellbedingungen	Einstellverfahren
1. Das Signal "Karomuster" zuführen.  	1. S6001 einstellen, so daß das unten dargestellte Symptom verschwindet.  schwarzer Streifen flattert (1) Wenn das obige Symptom unabhängig von der Position des Reglers S6001 nicht erscheint, den Regler in die Mittenposition stellen. (2) Wenn das Symptom erscheint, wenn der Regler auf eine Seite eingestellt ist, ihn auf die andere Seite einstellen. (3) Wenn das Symptom erscheint, wenn der Regler auf die Mitte eingestellt ist, ihn zu der Seite mit mehr Verzögerung einstellen.

37. Einstellung der Horizontalphase: DAC an Fernbedienung

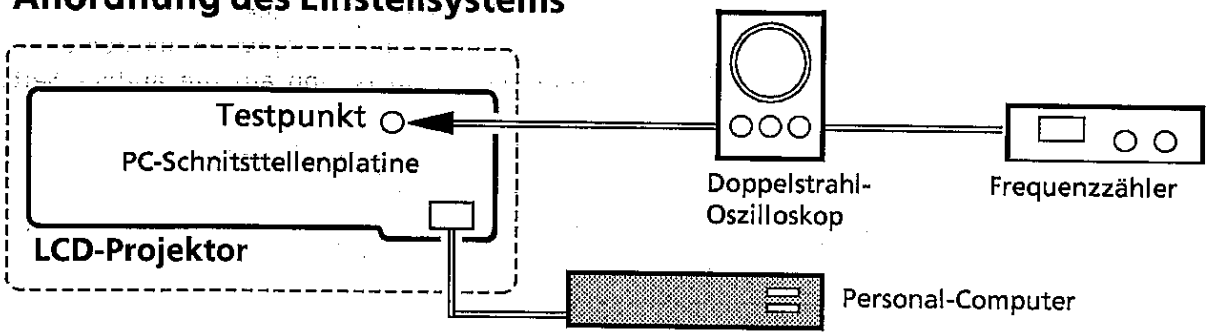
Einstellbedingungen	Einstellverfahren
1. Das Signal "Karomuster" zuführen.	(1) Mit der Fernbedienung den PROCESS IN-Modus abrufen. (2) Mit der Videowahltaste den Horizontalphasen-Modus wählen. (3) Mit den Tasten DAC (+) und DAC (–) die vertikalen Streifen unsichtbar machen.

EINSTELLUNG DER PC-SCHNITTSTELLENPLATINE

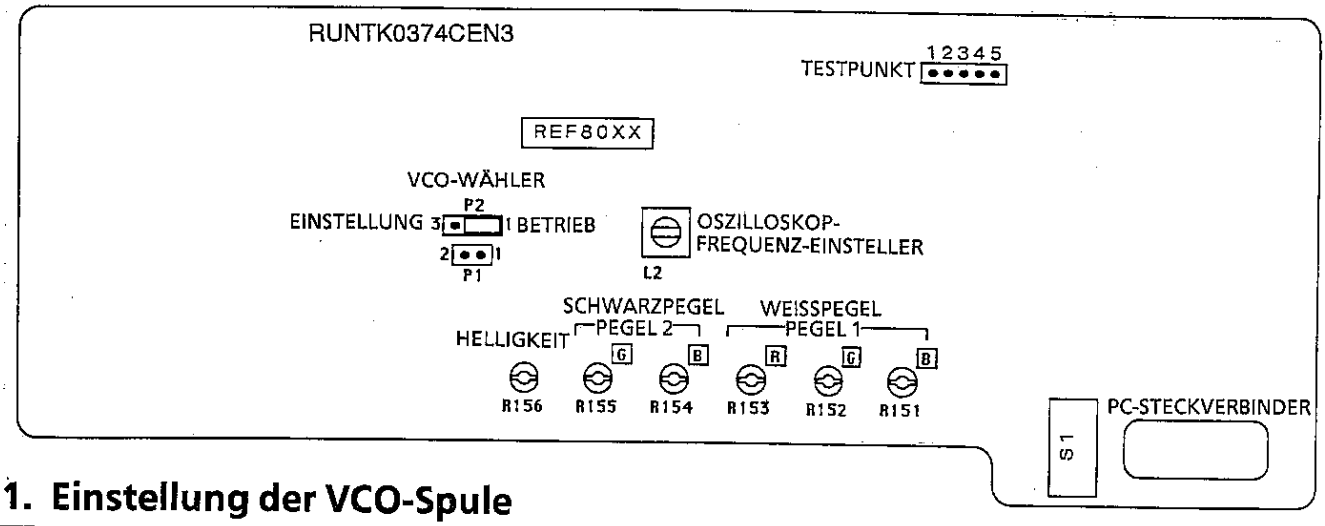
■ Einstellung der Analog- und Digitalabschmitte

Instrumente/Werkzeuge	Anmerkungen
Frequenzzähler	Meßfühler niedriger Kapazität als FET-Meßfühler
Doppelatrahl-Oszilloskop	
Personal-Computer	PC-9801, IBM-PC (VGA, JECA, EGA, CGA), Macintosh Serie
Schraubendreher für Kerneinstellung	
Schraubendreher für Reglereinstellung	

■ Anordnung des Einstellsystems



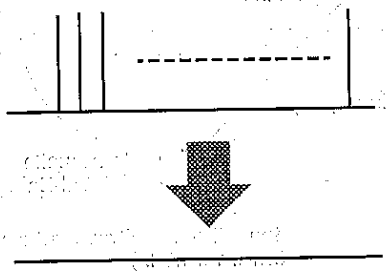
■ Anordnung der Regler



1. Einstellung der VCO-Spule

Einstellbedingungen	Einstellverfahren
☐ Testpunkt: TP3 ☐ Einstellpunkt: L8002	1. Die Spannungsversorgung ausschalten. 2. Den Frequenzzähler an TP3 anschließen. 3. Das Kabel vom PC-Steckverbinder abtrennen. Den P2-Kurzschlußstift zur Position 2-3 umstecken und die Spannungsversorgung einschalten. 4. L8002 so einstellen, daß die Oszillationsfrequenz 33 MHz beträgt. 5. Die Spannungsversorgung ausschalten und den P2-Kurzschlußstift zurück zur Position 1-2 bringen.

2. Pegel- und Verstärkungseinstellung (Analogausgang Computer)

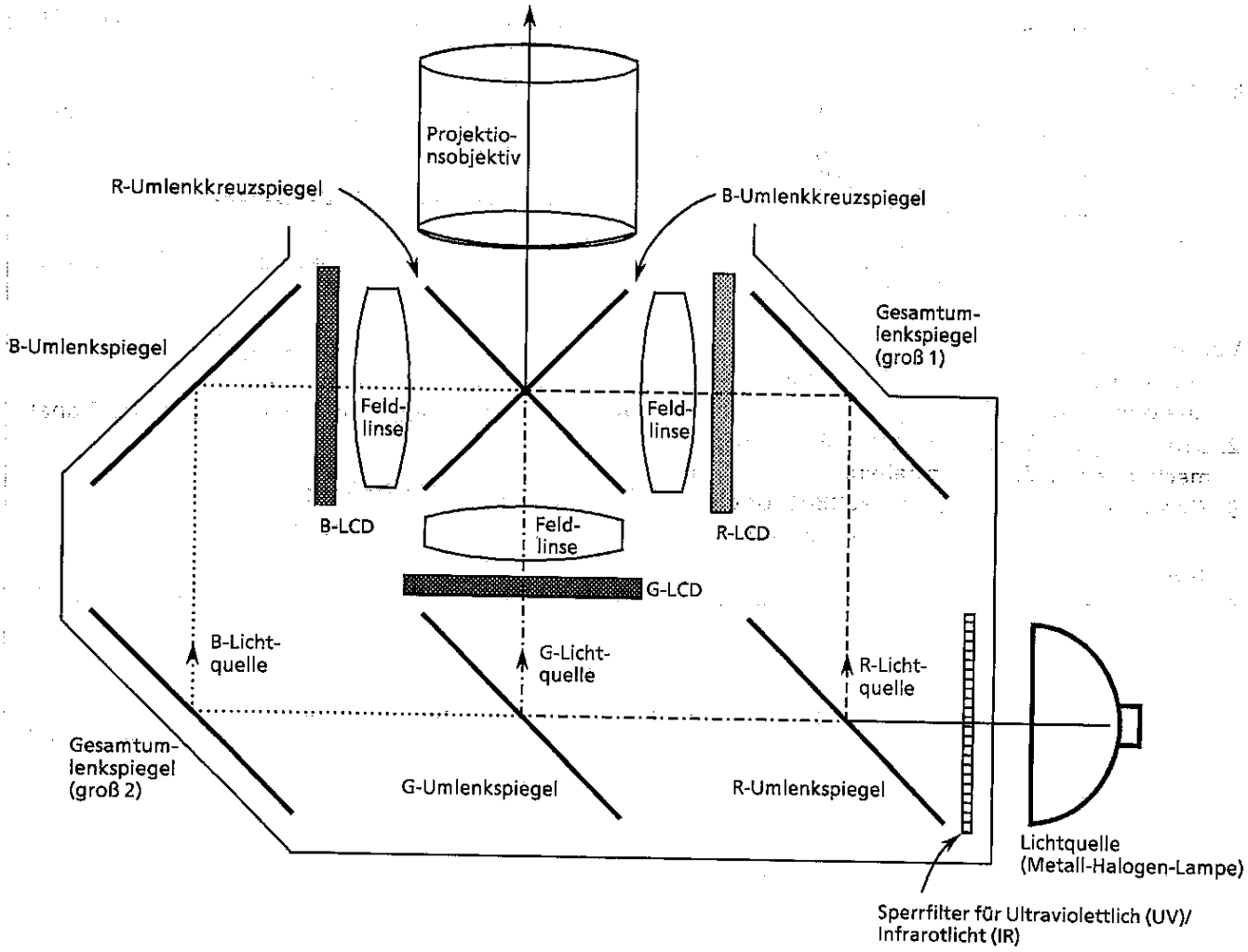
Einstellbedingungen	Einstellverfahren
Testpunkte: TP5 (Rot, Helligkeit) TP2 (Grün) TP4 (Blau) Einstellpunkte: R8153 (R-Schwarzpegel) R8152 (G-Schwarzpegel) R8151 (B-Schwarzpegel) R8156 (Helligkeit) R8155 (G-Weißpegel) R8154 (B-Weißpegel) Vorbereitungen 1. Den Analog/Digital-Wähler (S8001) auf die Analogposition stellen. 2. Die obigen Einstellregler auf ihre mechanischen Mitten einstellen. 3. Einen Personal-Computer (PC9801 oder IBM-PC (VGA)) an den PC-Steckverbinder anschließen. 4. Die Zeitbasis des Oszilloskops auf 5 μs einstellen. 	**● Einstellung des R-Schwarzpegels** 1. Vom Computer aus einen völlig schwarzen Bildschirm anzeigen. 2. Das Oszilloskop an TP5 anschließen. 3. R8153 (R-Schwarzpegel) so einstellen, daß das Signal gerade erscheint. **● Einstellung des G-Schwarzpegels** 4. Das Oszilloskop an TP2 anschließen. 5. R8152 (G-Schwarzpegel) so einstellen, daß das Signal gerade ercheint. **● Einstellung des B-Schwarzpegels** 6. Das Oszilloskop an TP4 anschließen. 7. R8151 (B-Schwarzpegel) so einstellen, daß das Signal gerade erscheint. **● Einstellung der Helligkeit** 8. Einen völlig weißen Bildschirm anzeigen. 9. Das Oszilloskop an TP5 anschließen. 10. R8156 (Helligkeit) so einstellen, daß das Signal gerade erscheint. **● Einstellung des G-Weißpegels** 11. Das Oszilloskop an TP2 anschließen. 12. R8155 (G-Weißpegel) so einstellen, daß das Signal gerade erscheint. **● Einstellung des B-Weißpegels** 13. Das Oszilloskop an TP4 anschließen. 14. R8154 (B-Weißpegel) so einstellen, daß das Signal gerade erscheint. Überprüfung Das Graustufenmuster (16 Stufen) auf dem Bildschirm anzeigen. Die Farbtöne des Bildes müssen der Vorgabe entsprechen.

3. Phaseneinstellung

Einstellbedingungen	Einstellverfahren
Einstellpunkte: Phasenregeltasten (PHASE< und PHASE>) Vorgabe: Bild so scharf wie wöglich	1. Vom Personal-Computer aus das Zeichen H (weiß 2000) auf dem Bildschirm anzeigen. 2. Die Phasenregeltasten (PHASE< und PHASE>) drücken, dis das Bild am Schärfsten wird.

ÜBERSICHT ÜBER DIE OPTIKEINHEIT

Grundlagen für die optische Einstellung



1. Einstellung der optischen Achse

R: Lichtquelle → R-Umlenkspiegel → Gesamtumlenkspiegel (groß1) → R-Umlenkkreuzspiegel → Projektionsobjektiv

G: Lichtquelle → G-Umlenkspiegel → Projektionsobjektiv

B: Lichtquelle → Gesamtumlenkspiegel (groß 2) → B-Umlenkspiegel → B-Umlenkkreuzspiegel → Projektionsobjektiv

Die Winkel der Spiegel, die die Lichtquellen reflektieren, einstellen.

Für diese Einstellung die G-Lichtquelle als Referenz verwenden.

Sicherstellen, daß die R- und B-Lichtstrahlen in Ausrichtung mit dem G-Lichtstrahl zum Projektionsobjektiv gelangen.

2. Ausrichtung der LCD-Tafeln

R: R-LCD-Tafel → Feldlinse → R-Umlenkkreuzspiegel → Projektionsobjektiv

G: G-LCD-Tafel → Feldlinse → Projektionsobjektiv

B: B-LCD-Tafel → Feldlinse → B-Umlenkkreuzspiegel → Projektionsobjektiv

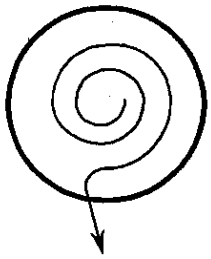
Die LCD-Tafeln nacheinander einstellen, um den Bildwinkel und die Fokussierung zu verbessern.

Für den R-Umlenkkreuzspiegel, den B-Umlenkkreuzspiegel und das Projektionsobjektiv ist keine Einstellung erforderlich.

■ Reingung der Linsen und Spiegel

1. Linsenreinigung

※ Reinigungsmittel
Das Mischungsverhältnis von Alkohol und Äther in Abhängigkeit von der Umgebungstemperatur ändern. Das beste Mischungsverhältnis ist, wenn die Flüssigkeit unmittelbar nach dem Reinigen von der Linsenoberfläche verdampft. Je mehr Äther enthalten ist, desto schneller verdampft die Flüssigkeit.



※ Methode
Gut gewaschene, gebleichte Baumwolle oder oder im Fachhandel erhältliches Reinigungspapier verwenden. Die Linse zwischen der gebleichten Baumwolle, die mit der Flüssigkeit befeuchtet wurde, mit dem Daumen und Zeigefinger halten. Die Linse drehen und von der Mitte ausgehend zum Rand hin reinigen, um den Staub aufzusammeln.
Es muß darauf geachtet werden, die vergütete oberfläche nicht zu stark zu reiben.

2. Spiegelreinigung

Die Spiegel niemals stark reiben, weil ihre Oberflächen durch Aufdampfung beschichtet sind. Zuerst Alkohol verwenden und mit einem trockenen Tuch wischen, wenn die Oberfläche etwas verschmutzt ist.

3. Zur Beachtung

Die Bildqualität wird stark beeinträchtigt, wenn beide Seiten der LCD-Einheit und die LCD-Seite der Kondensorlinsen verschmutzt sind. Diese Flächen müssen gut sauber gehalten werden.

■ Einstellung nach dem Auswechseln der LCD-Tafeln

Einstellung der LCD-Polarisationsplatte

1. Vorbereitungen

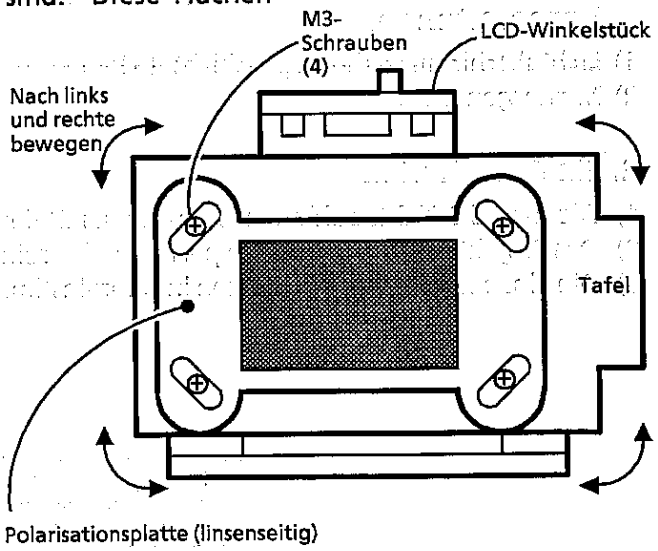
1) Mustergenerator
2) Kontrastarme Lichtquelle (beispielsweise Hintergrundbeleuchtung eines LCD-Fernsehgerätes)

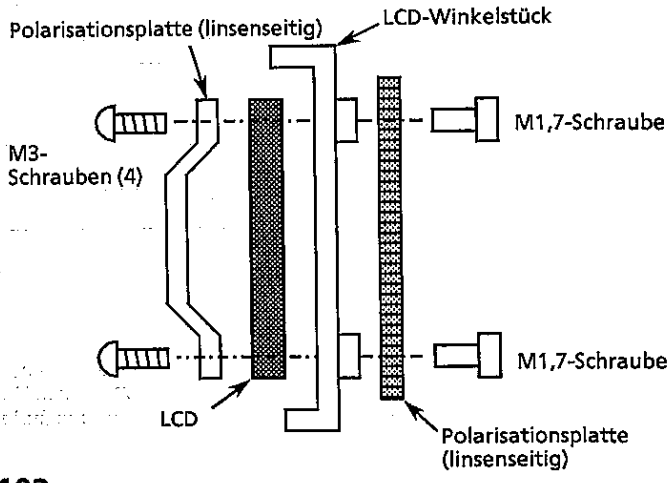
2. Einstellverfahren

1) Das Gerät einschalten. Das Schwarzmustersignal vom Mustergenerator zur Videoeingangsbuchse zuführen.
2) Die vier M3-Schrauben der (linsenseitigen) Polarisationsplatte (an der Projektionslinsenseite) lösen.

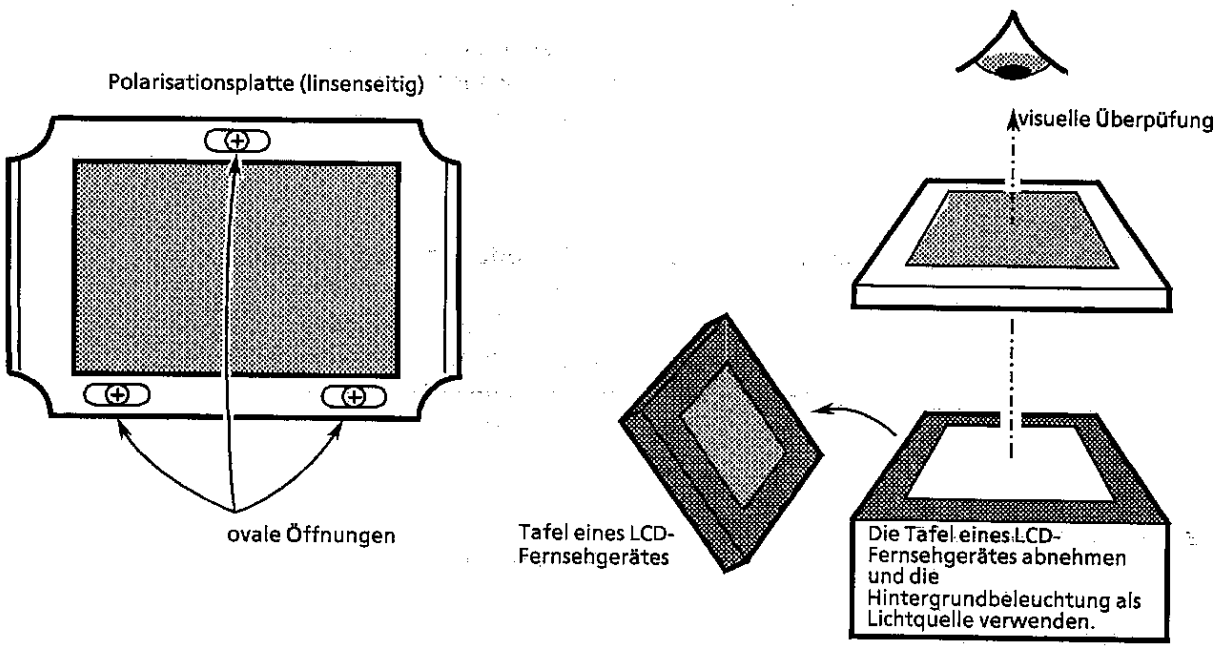
* Das Licht von der Lichtquelle durchlassen, wie unten dargestellt, und auf die (linsenseitige) Polarisationsplatte schauen, um die Position zu finden, wo das Schwarz am schwärzesten aussieht.

3) Das Licht von der Lichtquelle weiterhin durchlassen und die (linsenseitige) Polarisationsplatte nach rechts und links bewegen. Die Platte stoppen, wo sie am schwärzesten aussieht.
4) Die vier M3-Schrauben anziehen (8 ± 1kg–cm).





5) Die Polarisationsplatte (linsenseitig) außer zum Auswechseln niemals berühren. Falls sie ausgewechselt werden muß, die Befestigungsschrauben in die Mitten der ovalen Öffnungen ausrichten und anziehen (1,6 – 1,8 kg).


Polarisationsplatte (linsenseitig)
ovale Öffnungen
visuelle Überpüfung
Tafel eines LCD-Fernsehgerätes
Die Tafel eines LCD-Fernsehgerätes abnehmen und die Hintergrundbeleuchtung als Lichtquelle verwenden.

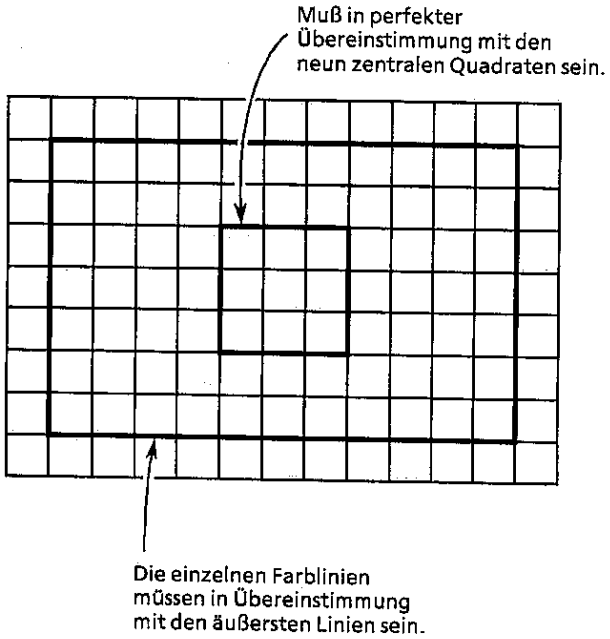
X- und Y-Einstellung

1. Vorbereitungen

1) Lichtabschirmung (harte beschichtete Pappe zum Blockieren des Lichts)
2) Mustergenerator

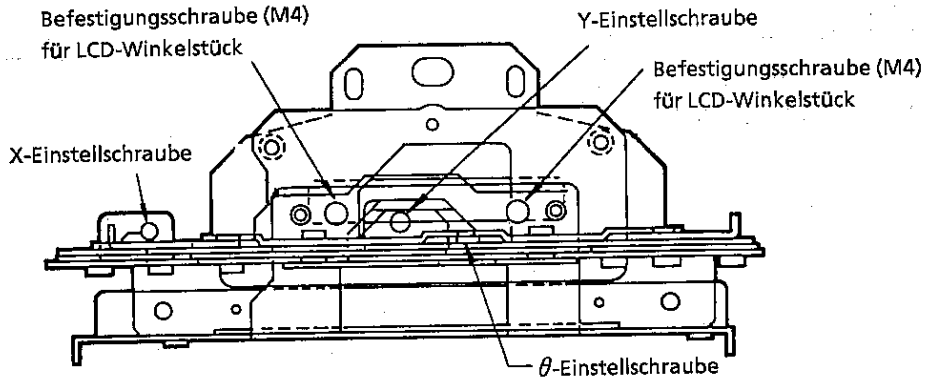
2. Einstellkriterien

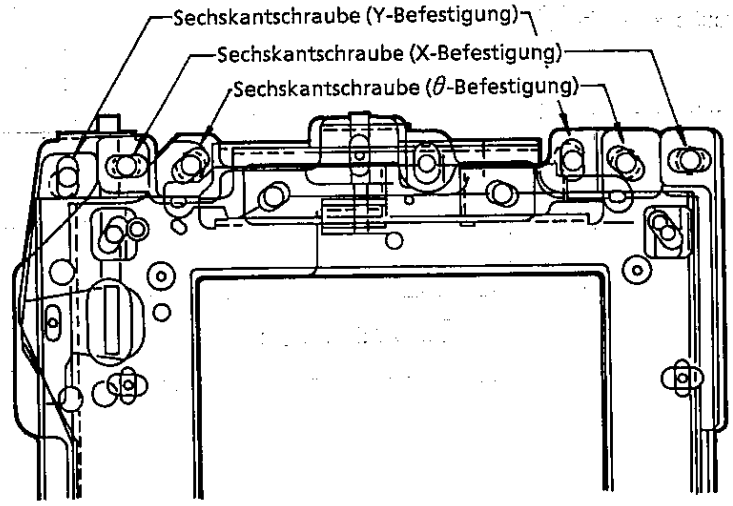
1) Die R- und B-Lichtstrahlen müssen genau mit dem G-Lichtstrahl zusammenfallen.
2) Das Projektionsmuster muß in perfekter Übereinstimmung mit den neun innersten Quadraten sein.
3) Die einzelnen Farblinien müssen in Übereinstimmung mit den äußersten Linien sein.


Muß in perfekter Übereinstimmung mit den neun zentralen Quadraten sein.
Die einzelnen Farblinien müssen in Übereinstimmung mit den äußersten Linien sein.

3. Einstellverfahren

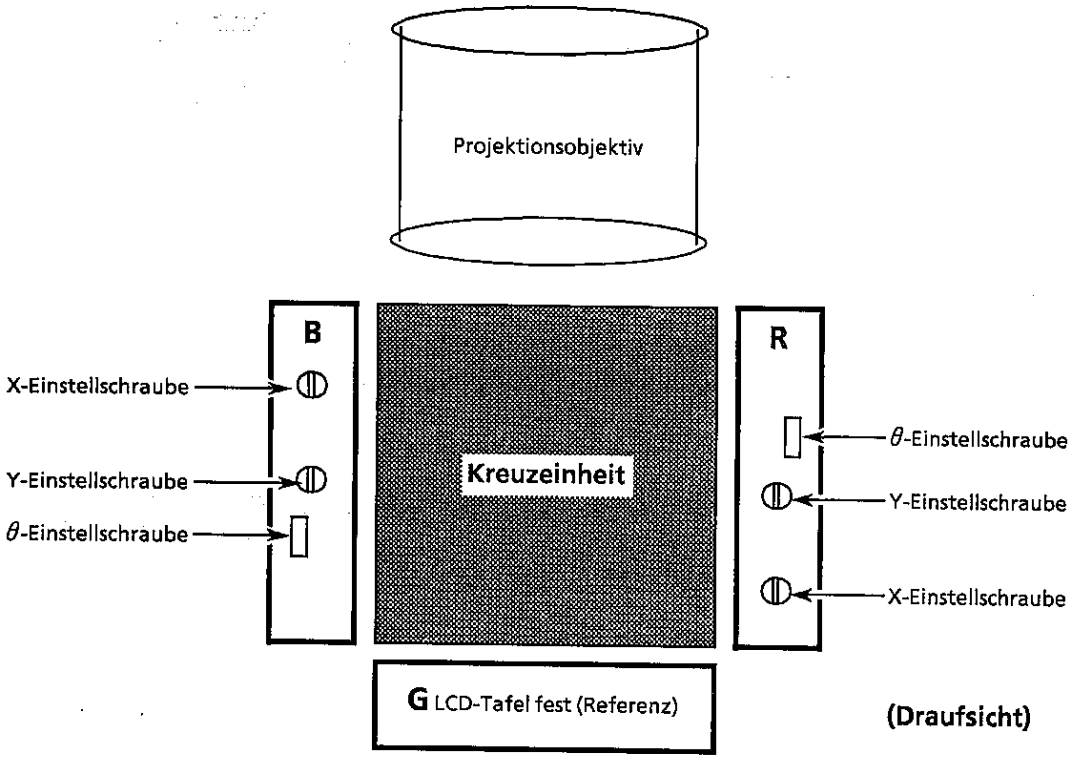
1) Von der R- und B-LCD-Tafel jeweils acht (insgesamt 16) Sechskantschrauben lösen.
2) Vom Mustergenerator das Gittermustersignal zuführen.





3) a: **"R"-Einstellung**
Die Lichtabschirmung vor die B-LCD-Tafel bringen (um das Licht von der B-Lichtquelle zu blockieren). Das R-Quadrat mit dem G-Quadrat zusammenbringen. Die X-Einstellung für die horizontale Richtung und die Y-Einstellung für die vertikale Richtung durchführen.
* Für die Neigung die θ -Einstellung durchführen.

b: **"B"-Einstellung**
Die Lichtabschirmung vor die R-LCD-Tafel bringen (um das Licht von der R-Lichtquelle zu blockieren). Das B-Quadrat mit dem G-Quadrat zusammenbringen. Die X-Einstellung für die horizontale Richtung und die Y-Einstellung für die vertikale Richtung durchführen.



Schraubendrehung	entgegen Uhrzeigersinn	im Uhrzeigersinn
X	bewegt sich nach links	bewegt sich nach rechts
Y	bewegt sich nach oben	bewegt sich nach unten
θ*	rechte Seite nach oben	linke Seite nach oben

* (wenn der Einstellniet sich oben in der ovalen Öffnung befindet)

4) Die 16 Sechskantschrauben anziehen (13 ± 1 kg-cm).

STÖRUNGSSUCHE

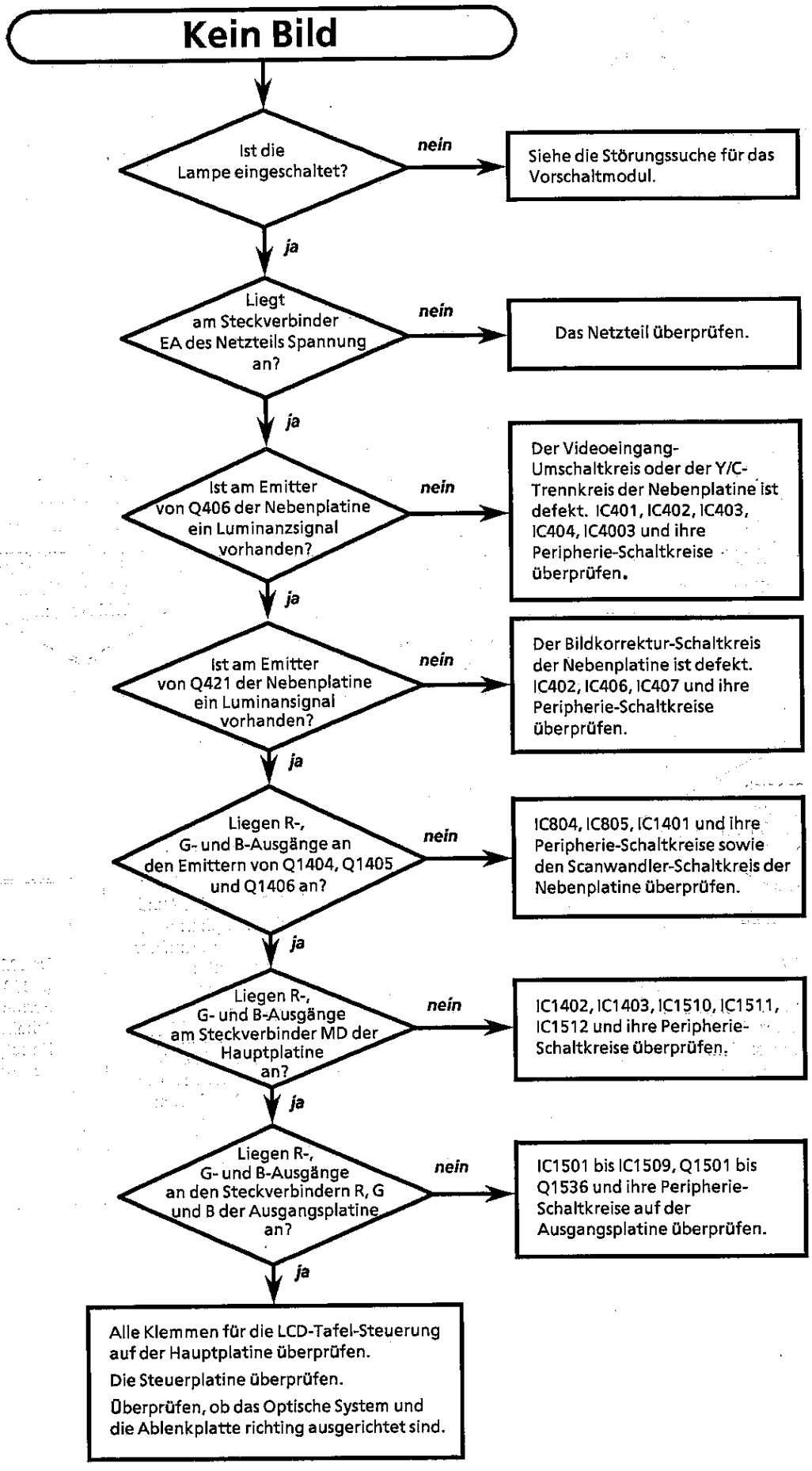

Kein Bild
Ist die Lampe eingeschaltet?
nein
Siehe die Störungssuche für das Vorschaltmodul.
ja
Liegt am Steckverbinder EA des Netzteils Spannung an?
nein
Das Netzteil überprüfen.
ja
Ist am Emitter von Q406 der Nebenplatine ein Luminanzsignal vorhanden?
nein
Der Videoeingang-Umschaltkreis oder der Y/C-Trennkreis der Nebenplatine ist defekt. IC401, IC402, IC403, IC404, IC4003 und ihre Peripherie-Schaltkreise überprüfen.
ja
Ist am Emitter von Q421 der Nebenplatine ein Luminansignal vorhanden?
nein
Der Bildkorrektur-Schaltkreis der Nebenplatine ist defekt. IC402, IC406, IC407 und ihre Peripherie-Schaltkreise überprüfen.
ja
Liegen R-, G- und B-Ausgänge an den Emittern von Q1404, Q1405 und Q1406 an?
nein
IC804, IC805, IC1401 und ihre Peripherie-Schaltkreise sowie den Scanwandler-Schaltkreis der Nebenplatine überprüfen.
ja
Liegen R-, G- und B-Ausgänge am Steckverbinder MD der Hauptplatine an?
nein
IC1402, IC1403, IC1510, IC1511, IC1512 und ihre Peripherie-Schaltkreise überprüfen.
ja
Liegen R-, G- und B-Ausgänge an den Steckverbindern R, G und B der Ausgangsplatine an?
nein
IC1501 bis IC1509, Q1501 bis Q1536 und ihre Peripherie-Schaltkreise auf der Ausgangsplatine überprüfen.
ja
Alle Klemmen für die LCD-Tafel-Steuerung auf der Hauptplatine überprüfen.
Die Steuerplatine überprüfen.
Überprüfen, ob das Optische System und die Ablenkplatte richting ausgerichtet sind.

TABELLE FÜR STÖRUNGSSUCHE (fortgesetzt)

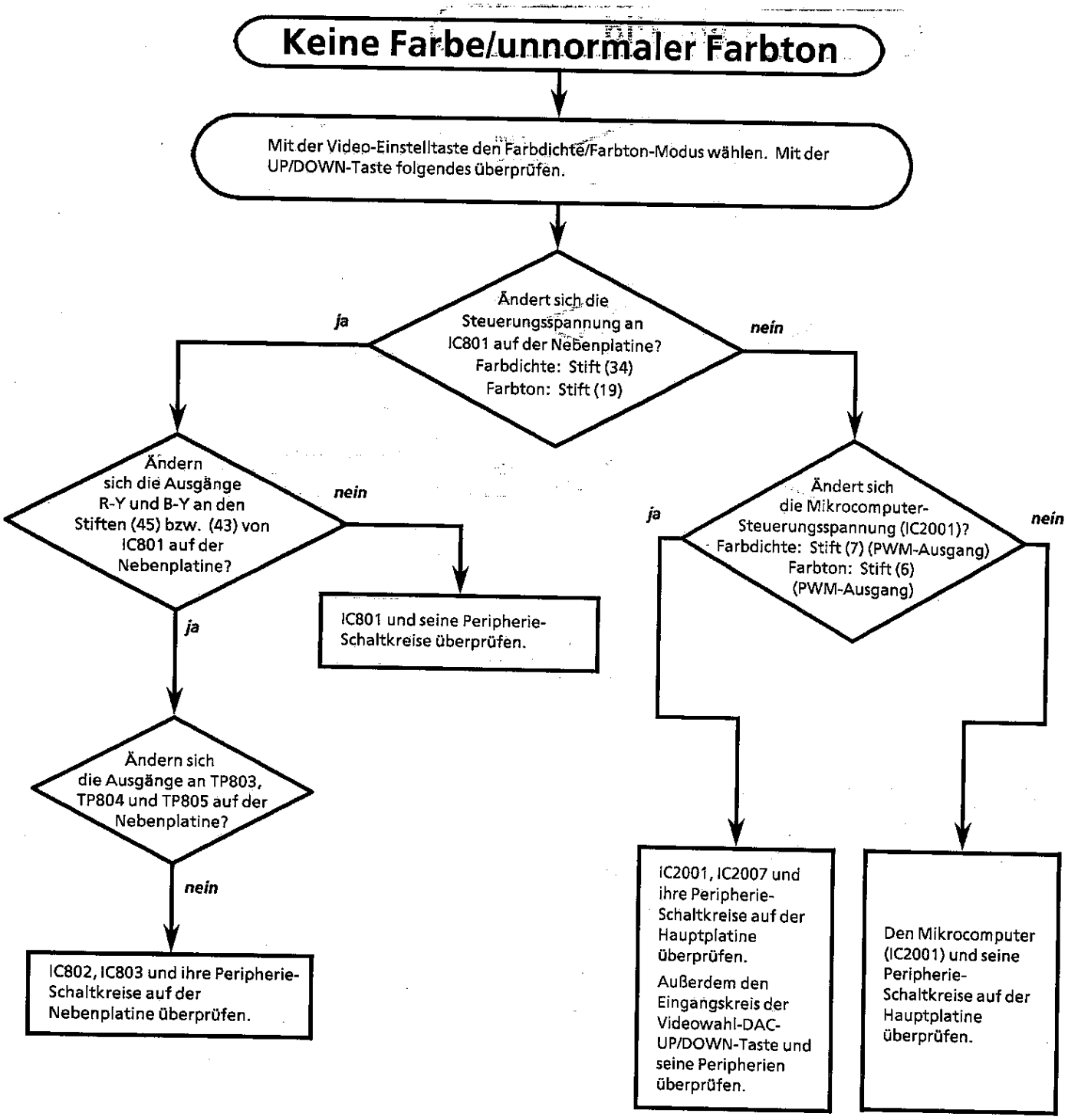
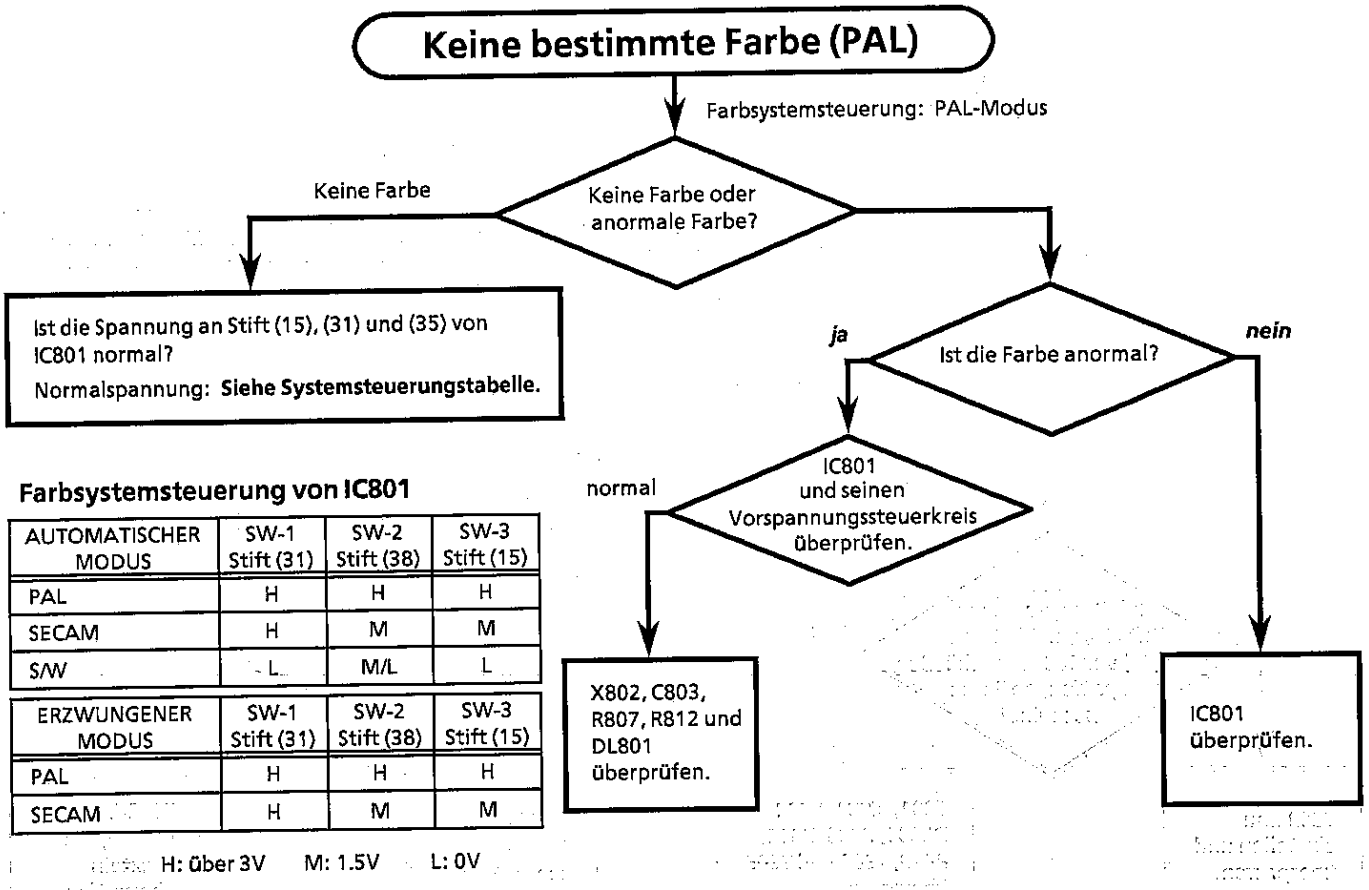

Keine Farbe/unnormaler Farbton
Mit der Video-Einstelltaste den Farbdichte/Farbton-Modus wählen. Mit der UP/DOWN-Taste folgendes überprüfen.
Ändert sich die Steuerungsspannung an IC801 auf der Nebenplatine? Farbdichte: Stift (34) Farbton: Stift (19)
ja
nein
Ändern sich die Ausgänge R-Y und B-Y an den Stiften (45) bzw. (43) von IC801 auf der Nebenplatine?
nein
ja
IC801 und seine Peripherie-Schaltkreise überprüfen.
Ändern sich die Ausgänge an TP803, TP804 und TP805 auf der Nebenplatine?
nein
IC802, IC803 und ihre Peripherie-Schaltkreise auf der Nebenplatine überprüfen.
Ändert sich die Mikrocomputer-Steuerungsspannung (IC2001)? Farbdichte: Stift (7) (PWM-Ausgang) Farbton: Stift (6) (PWM-Ausgang)
ja
nein
IC2001, IC2007 und ihre Peripherie-Schaltkreise auf der Hauptplatine überprüfen.
Außerdem den Eingangskreis der Videowahl-DAC-UP/DOWN-Taste und seine Peripherien überprüfen.
Den Mikrocomputer (IC2001) und seine Peripherie-Schaltkreise auf der Hauptplatine überprüfen.

TABELLE FÜR STÖRUNGSSUCHE (fortgesetzt)



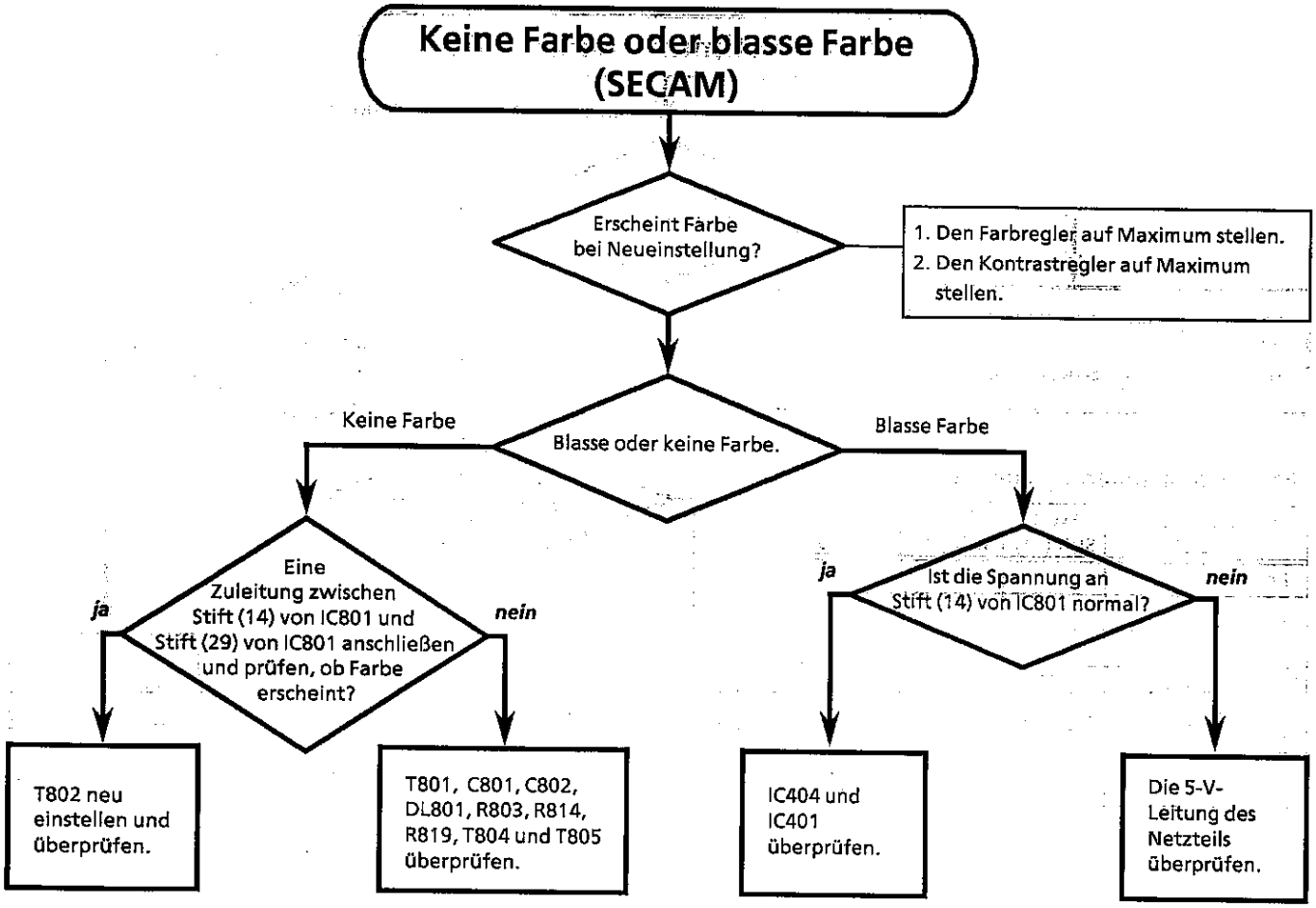
Farbsystemsteuerung von IC801

AUTOMATISCHER MODUS	SW-1 Stift (31)	SW-2 Stift (38)	SW-3 Stift (15)
PAL	H	H	H
SECAM	H	M	M
S/W	L	M/L	L

ERZWUNGENER MODUS	SW-1 Stift (31)	SW-2 Stift (38)	SW-3 Stift (15)
PAL	H	H	H
SECAM	H	M	M

H: über 3V M: 1.5V L: 0V

TABELLE FÜR STÖRUNGSSUCHE (fortgesetzt)


Keine Farbe oder blasse Farbe (SECAM)
Erscheint Farbe bei Neueinstellung?
1. Den Farbregler auf Maximum stellen.
2. Den Kontrastregler auf Maximum stellen.
Blasse oder keine Farbe.
Keine Farbe
Blasse Farbe
Eine Zuleitung zwischen Stift (14) von IC801 und Stift (29) von IC801 anschließen und prüfen, ob Farbe erscheint?
ja
nein
T802 neu einstellen und überprüfen.
T801, C801, C802, DL801, R803, R814, R819, T804 und T805 überprüfen.
Ist die Spannung an Stift (14) von IC801 normal?
ja
nein
IC404 und IC401 überprüfen.
Die 5-V-Leitung des Netzteils überprüfen.

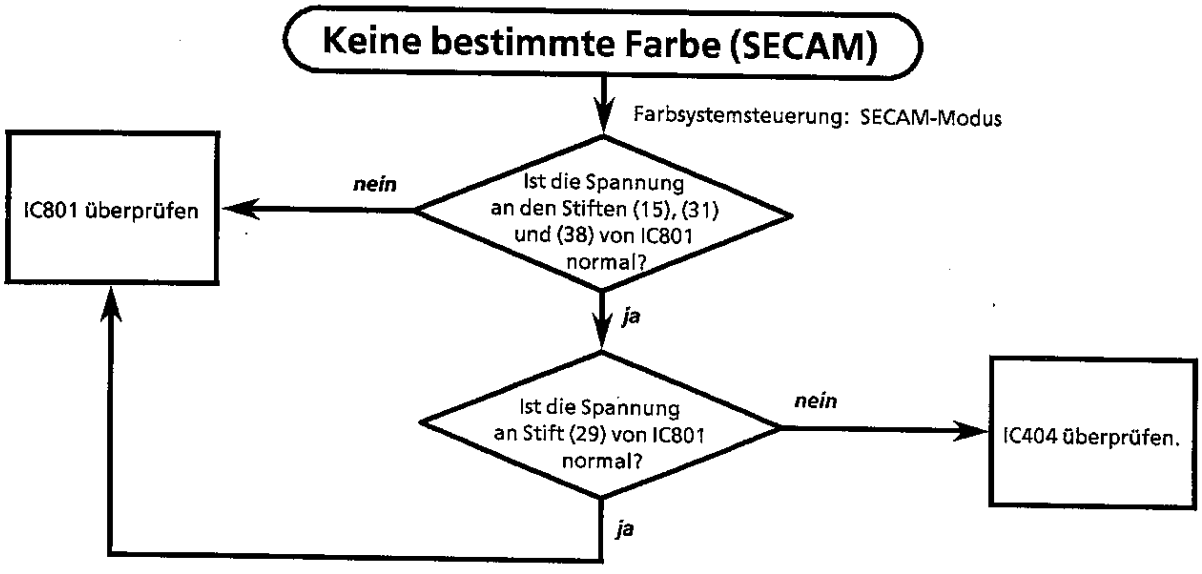


TABELLE FÜR STÖRUNGSSUCHE (fortgesetzt)

Kein computergesteuertes (RGB) Bild

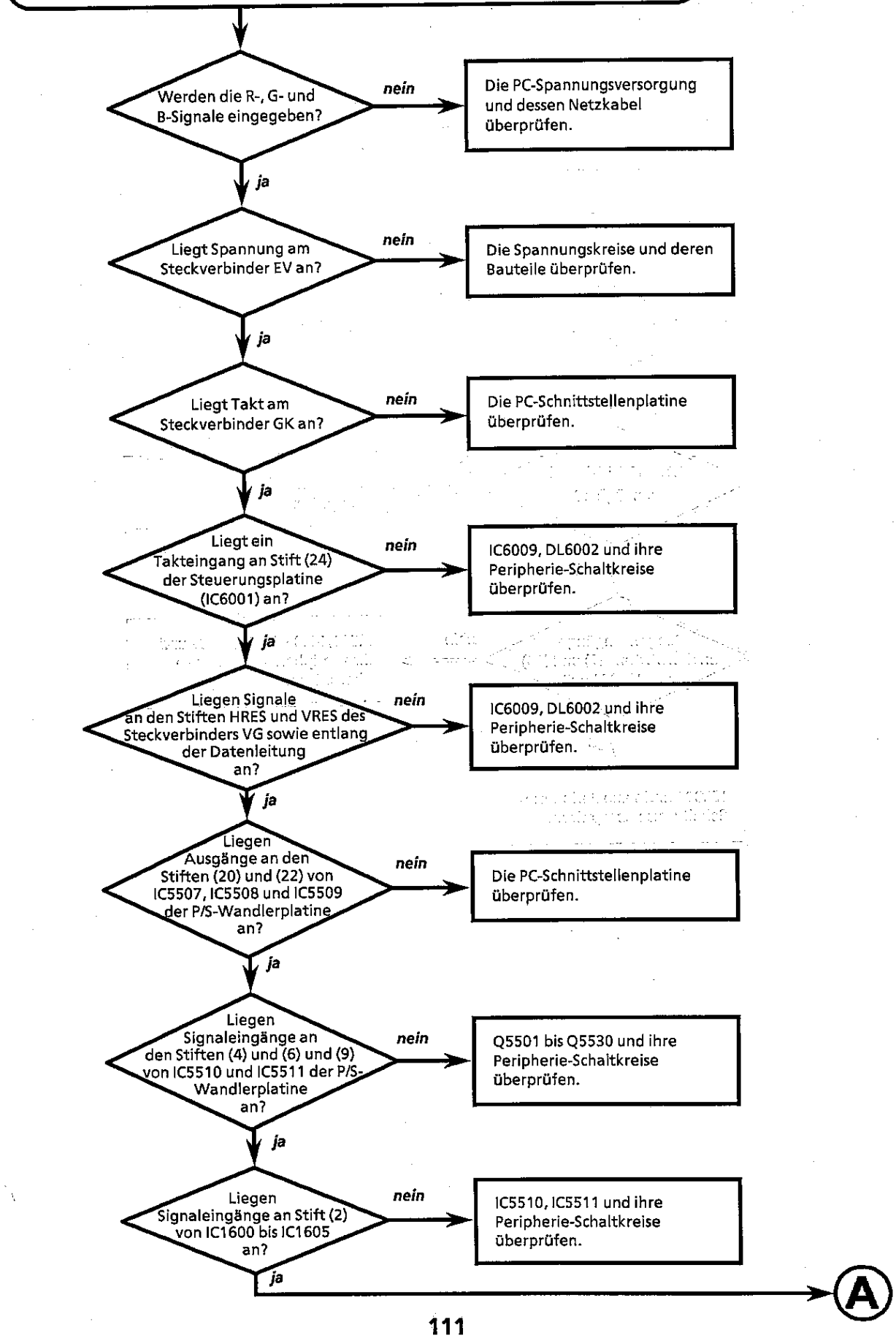

Werden die R-, G- und B-Signale eingegeben?
nein
Die PC-Spannungsversorgung und dessen Netzkabel überprüfen.
ja
Liegt Spannung am Steckverbinder EV an?
nein
Die Spannungskreise und deren Bauteile überprüfen.
ja
Liegt Takt am Steckverbinder GK an?
nein
Die PC-Schnittstellenplatine überprüfen.
ja
Liegt ein Takteingang an Stift (24) der Steuerungsplatine (IC6001) an?
nein
IC6009, DL6002 und ihre Peripherie-Schaltkreise überprüfen.
ja
Liegen Signale an den Stiften HRES und VRES des Steckverbinders VG sowie entlang der Datenleitung an?
nein
IC6009, DL6002 und ihre Peripherie-Schaltkreise überprüfen.
ja
Liegen Ausgänge an den Stiften (20) und (22) von IC5507, IC5508 und IC5509 der P/S-Wandlerplatine an?
nein
Die PC-Schnittstellenplatine überprüfen.
ja
Liegen Signaleingänge an den Stiften (4) und (6) und (9) von IC5510 und IC5511 der P/S-Wandlerplatine an?
nein
Q5501 bis Q5530 und ihre Peripherie-Schaltkreise überprüfen.
ja
Liegen Signaleingänge an Stift (2) von IC1600 bis IC1605 an?
nein
IC5510, IC5511 und ihre Peripherie-Schaltkreise überprüfen.
ja
A

TABELLE FÜR STÖRUNGSSUCHE (fortgesetzt)

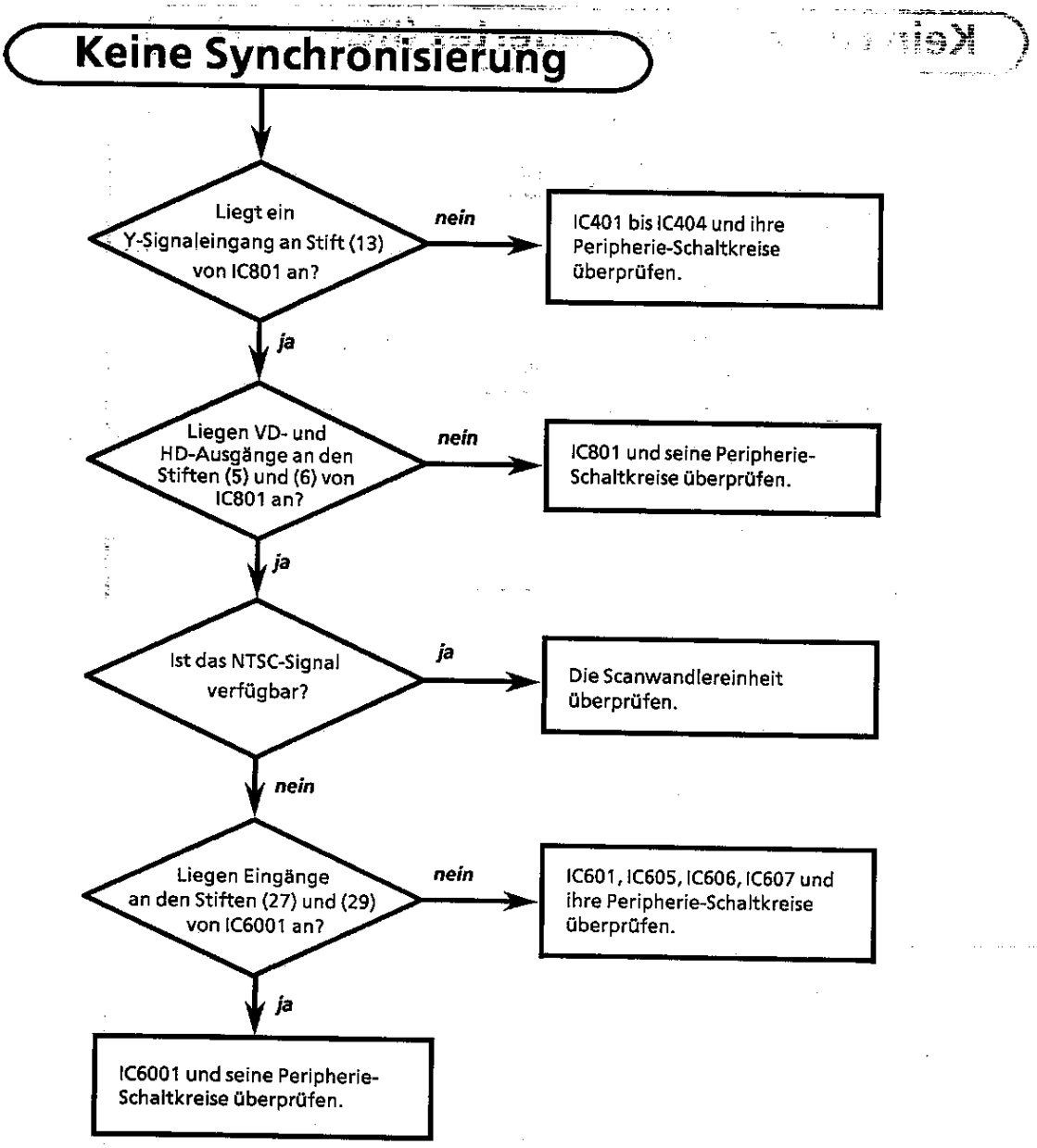
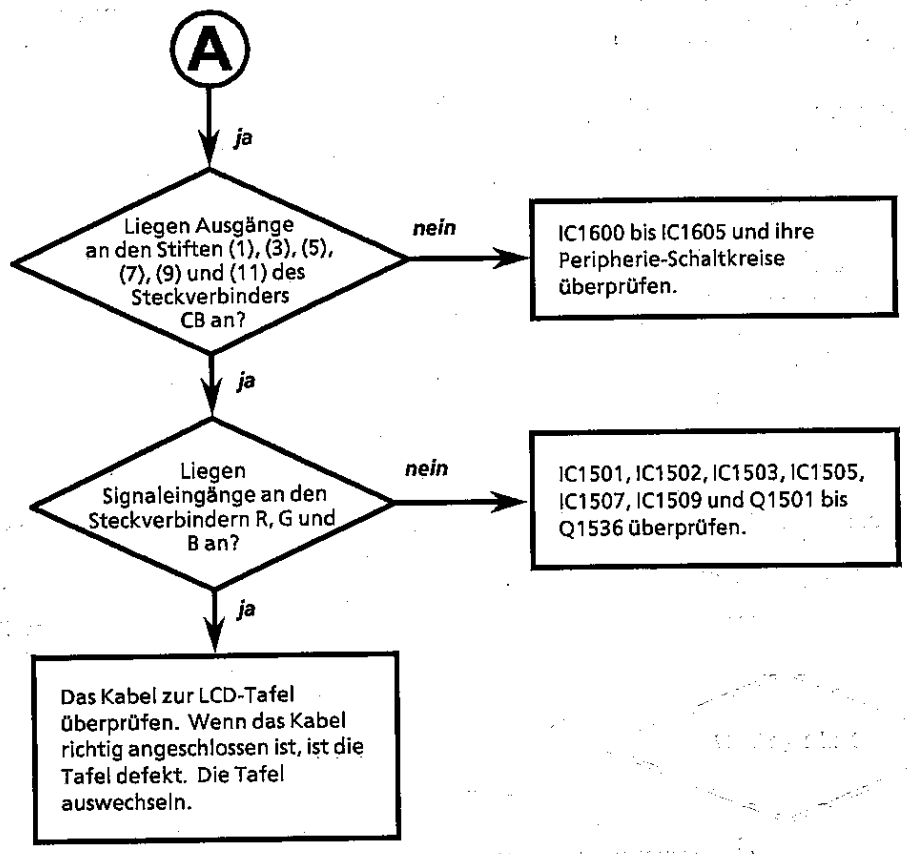
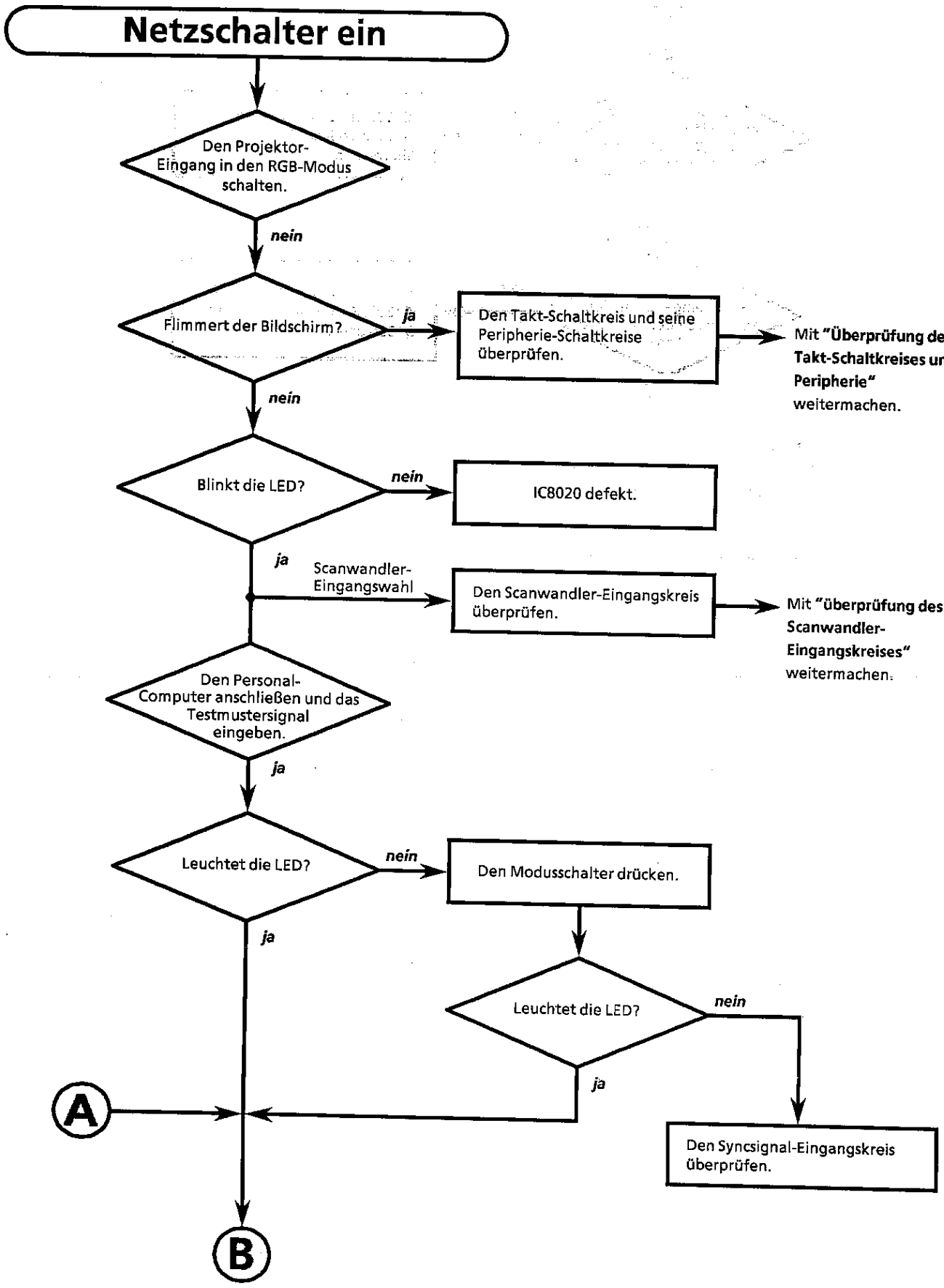

Keine Synchronisierung
Liegt ein Y-Signaleingang an Stift (13) von IC801 an?
nein
IC401 bis IC404 und ihre Peripherie-Schaltkreise überprüfen.
ja
Liegen VD- und HD-Ausgänge an den Stiften (5) und (6) von IC801 an?
nein
IC801 und seine Peripherie-Schaltkreise überprüfen.
ja
Ist das NTSC-Signal verfügbar?
ja
Die Scanwandlereinheit überprüfen.
nein
Liegen Eingänge an den Stiften (27) und (29) von IC6001 an?
nein
IC601, IC605, IC606, IC607 und ihre Peripherie-Schaltkreise überprüfen.
ja
IC6001 und seine Peripherie-Schaltkreise überprüfen.

TABELLE FÜR STÖRUNGSSUCHE (fortgesetzt)

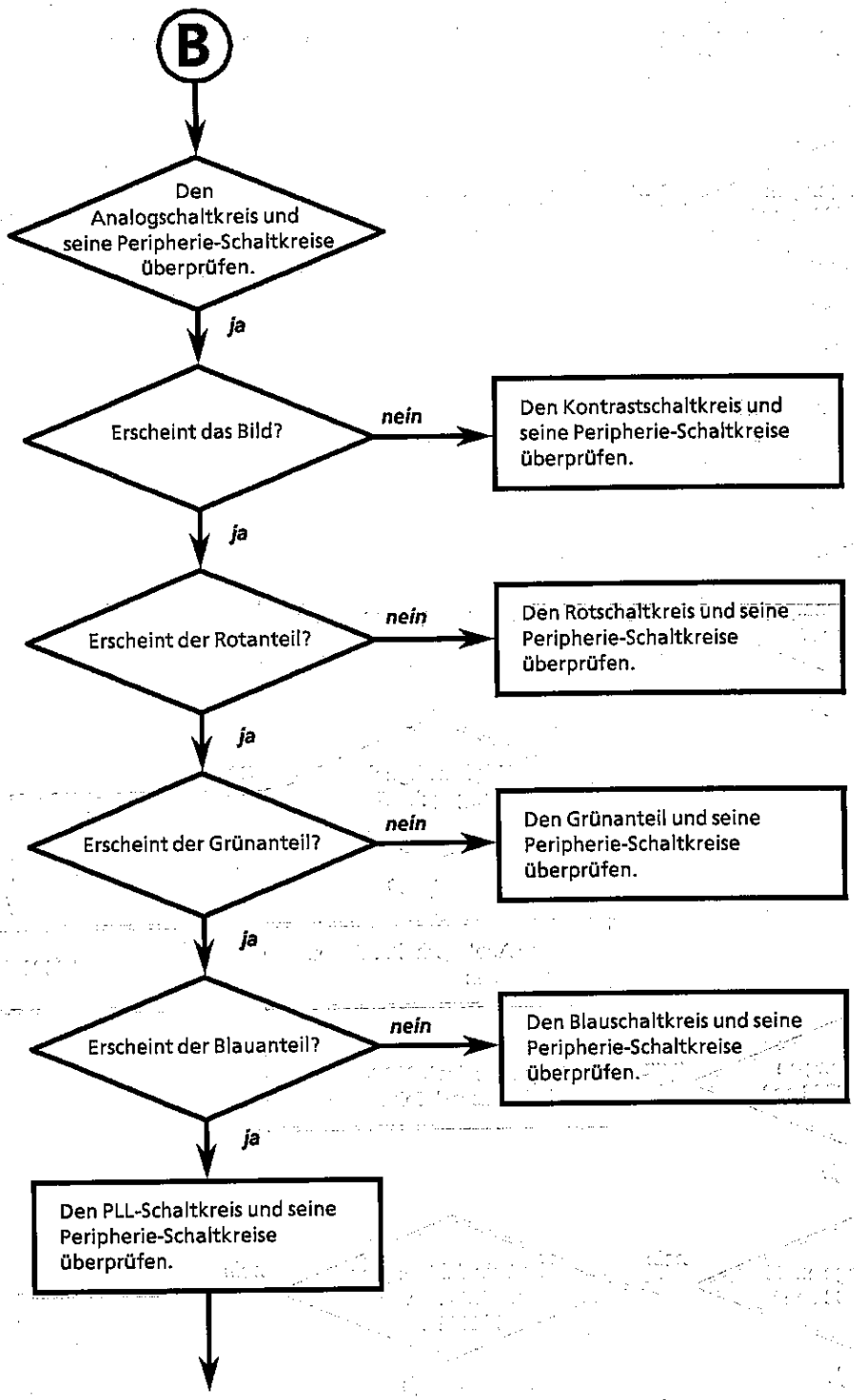

A
ja
Liegen Ausgänge an den Stiften (1), (3), (5), (7), (9) und (11) des Steckverbinders CB an?
nein
IC1600 bis IC1605 und ihre Peripherie-Schaltkreise überprüfen.
ja
Liegen Signaleingänge an den Steckverbindern R, G und B an?
nein
IC1501, IC1502, IC1503, IC1505, IC1507, IC1509 und Q1501 bis Q1536 überprüfen.
ja
Das Kabel zur LCD-Tafel überprüfen. Wenn das Kabel richtig angeschlossen ist, ist die Tafel defekt. Die Tafel auswechseln.

STÖRUNGSSUCHE FÜR PC-SCHNITTSTELLENPLATINE



STÖRUNGSSUCHE FÜR PC-SCHNITTSTELLENPLATINE

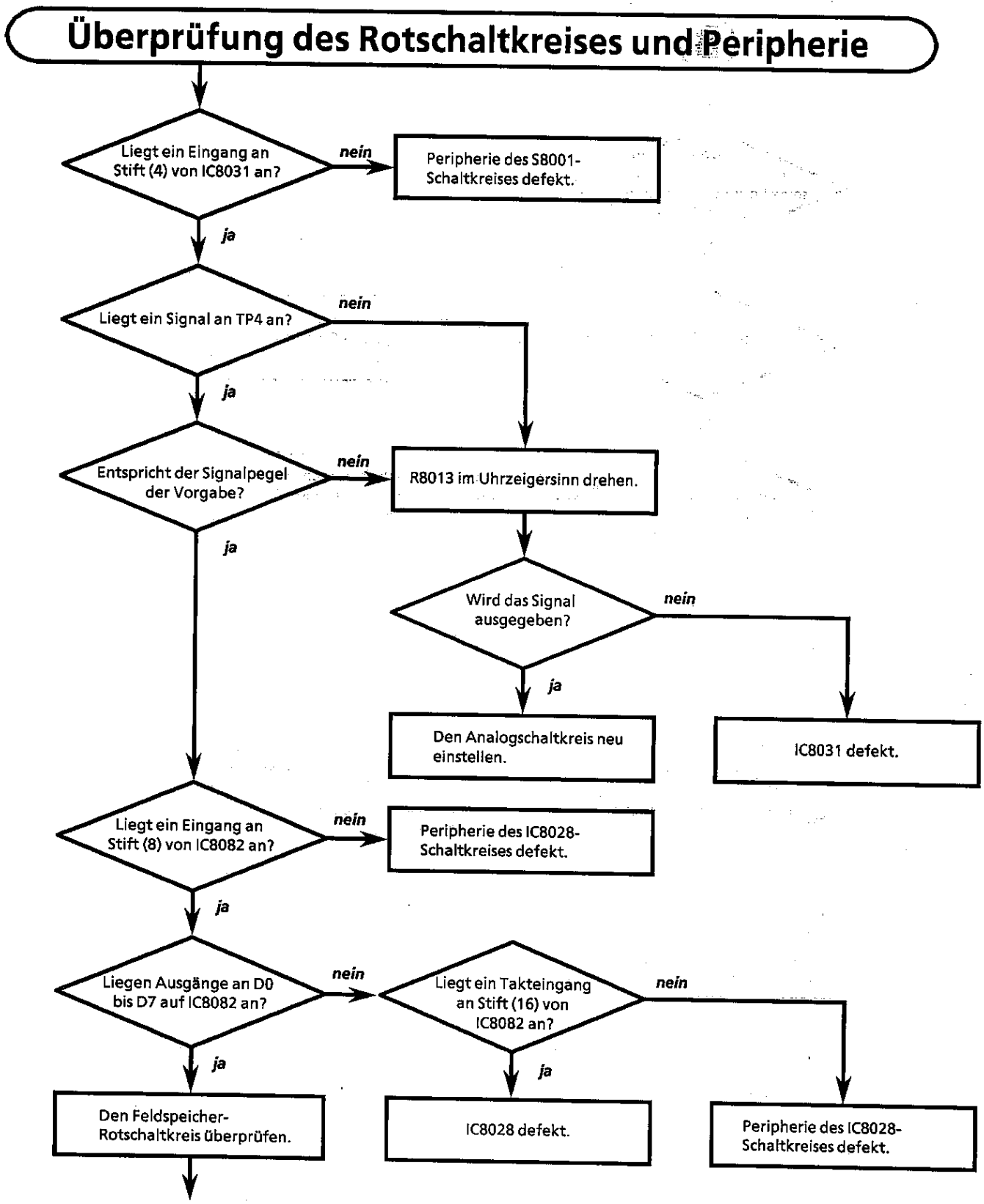
(fortgesetzt)



Mit **"Überprüfung des PLL-Schaltkreises und Peripherie"** weitermachen.

STÖRUNGSSUCHE FÜR PC-SCHNITTSTELLENPLATINE
(fortgesetzt)

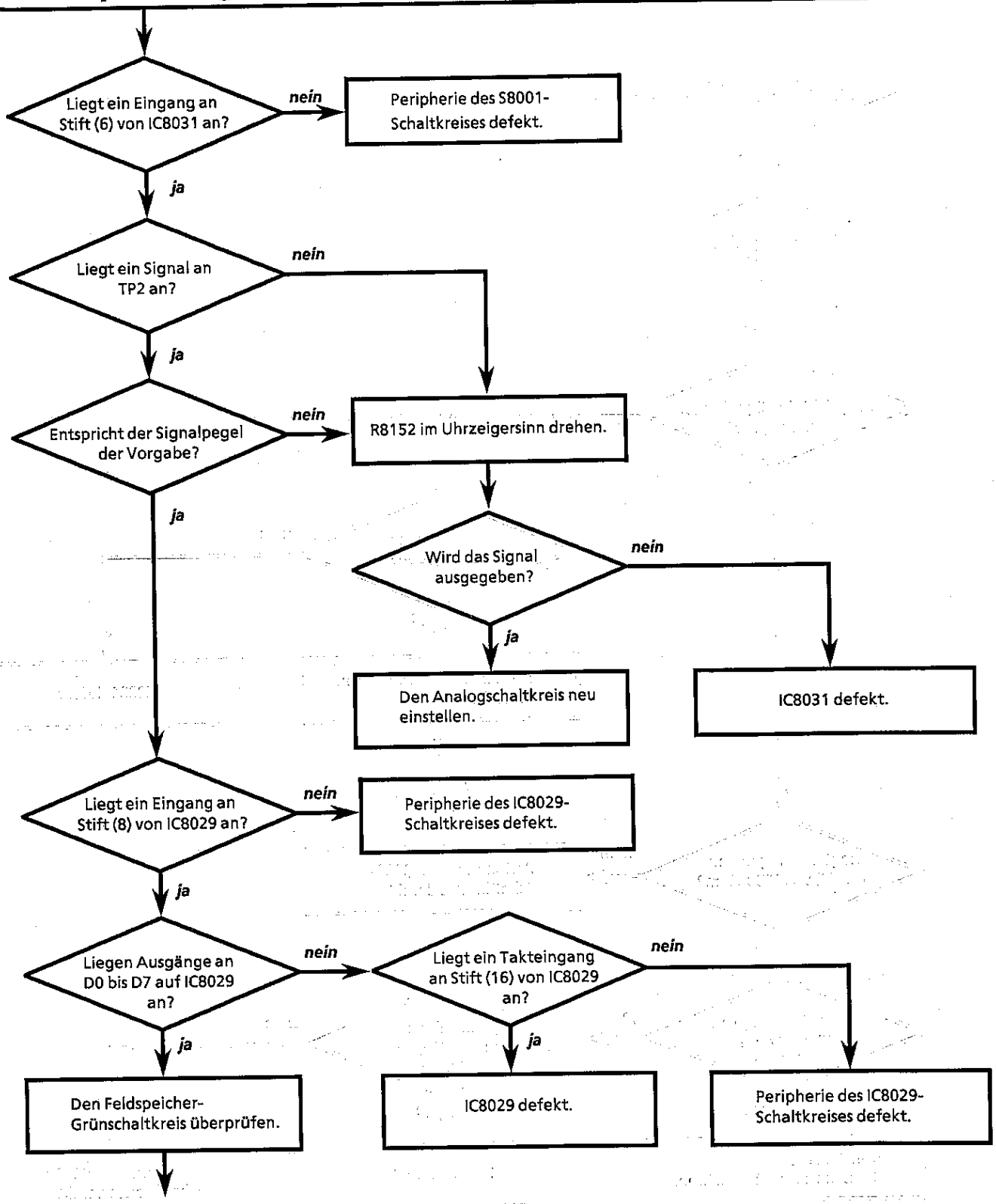
Überprüfung des Rotschaltkreises und Peripherie



Mit **"Überprüfung des Feldspeicher-Rotschaltkreises und Peripherie"** weitermachen.

STÖRUNGSSUCHE FÜR PC-SCHNITTSTELLENPLATINE
(fortgesetzt)

Überprüfung des Grünschaltkreises und Peripherie

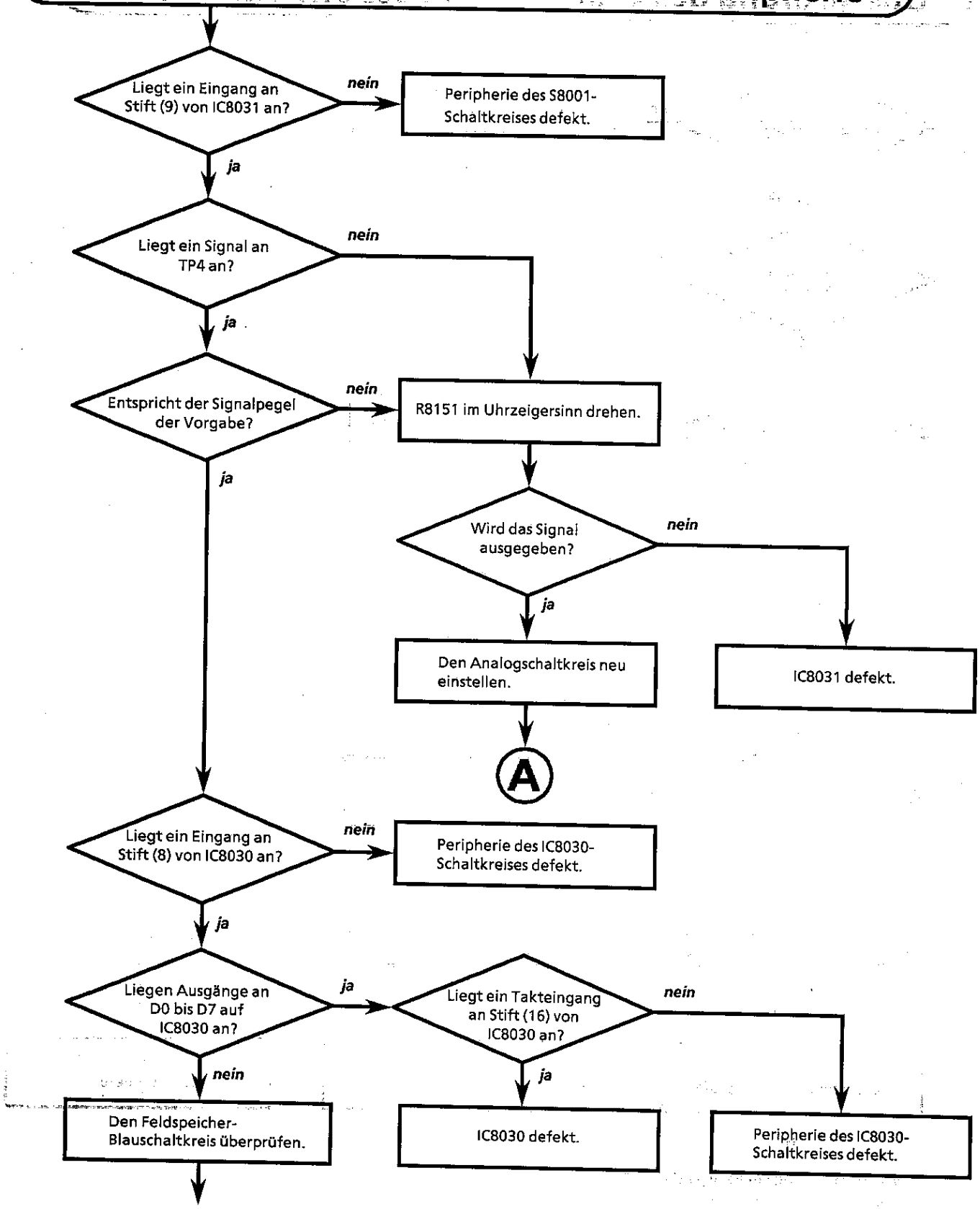


Mit **"Überprüfung des Feldspeicher-Grünschaltkreises und Peripherie"** Weitermachen.

STÖRUNGSSUCHE FÜR PC-SCHNITTSTELLENPLATINE

(fortgesetzt)

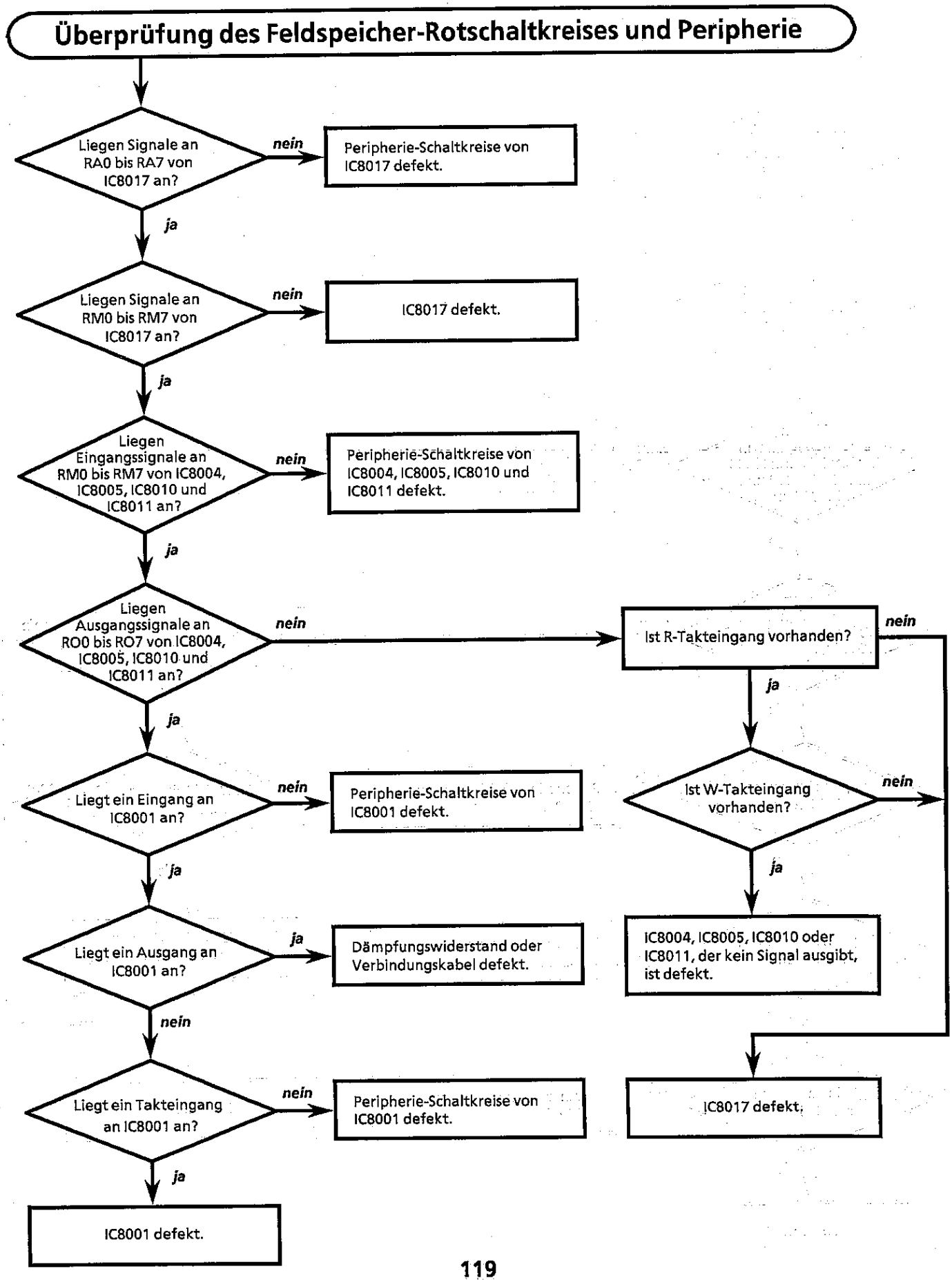
Überprüfung des Blauschaltkreises und Peripherie



Mit **"Überprüfung des Feldspeicher-Blauschaltkreises und Peripherie"** weitermachen.

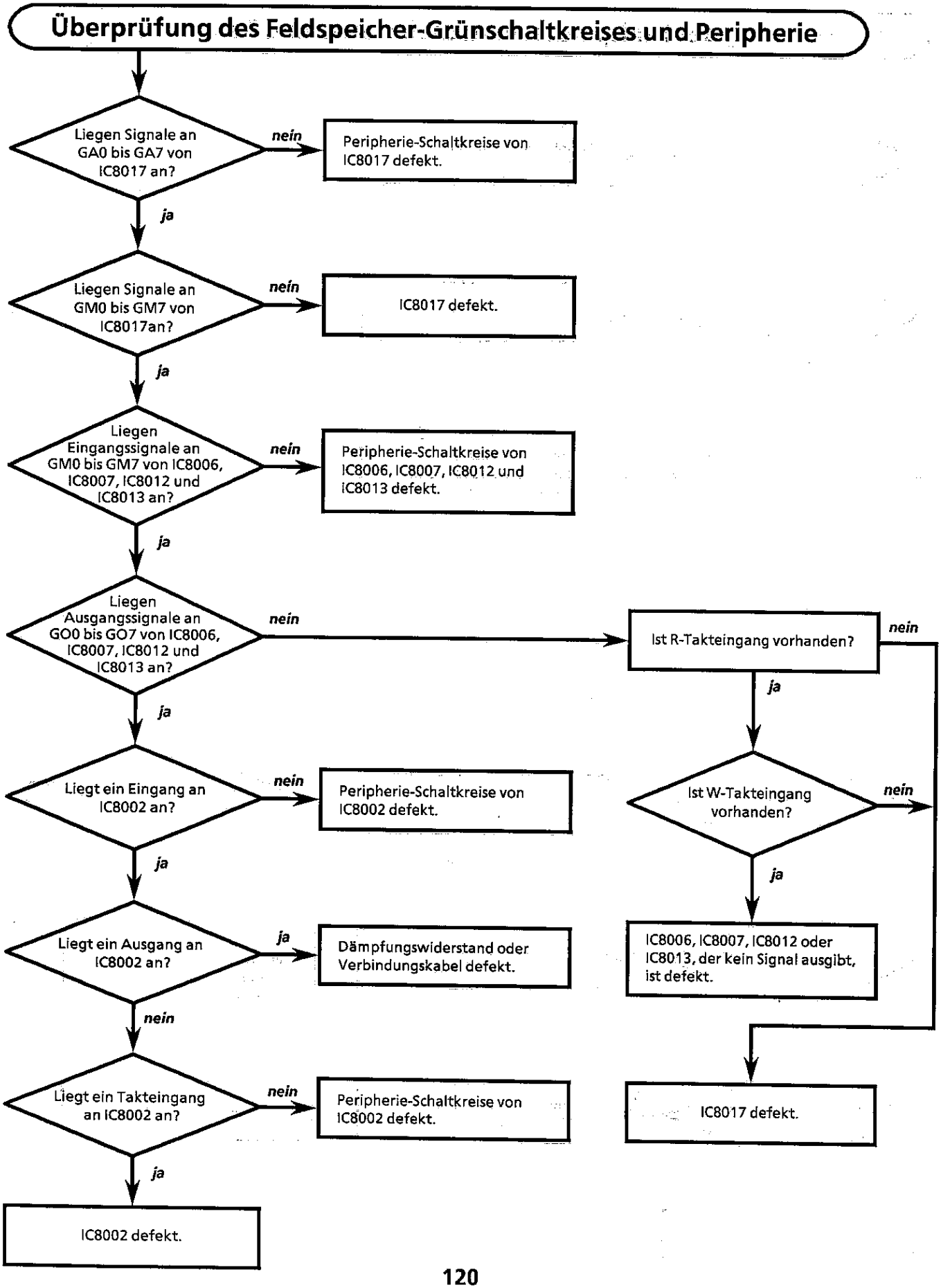
STÖRUNGSSUCHE FÜR PC-SCHNITTSTELLENPLATINE

(fortgesetzt)



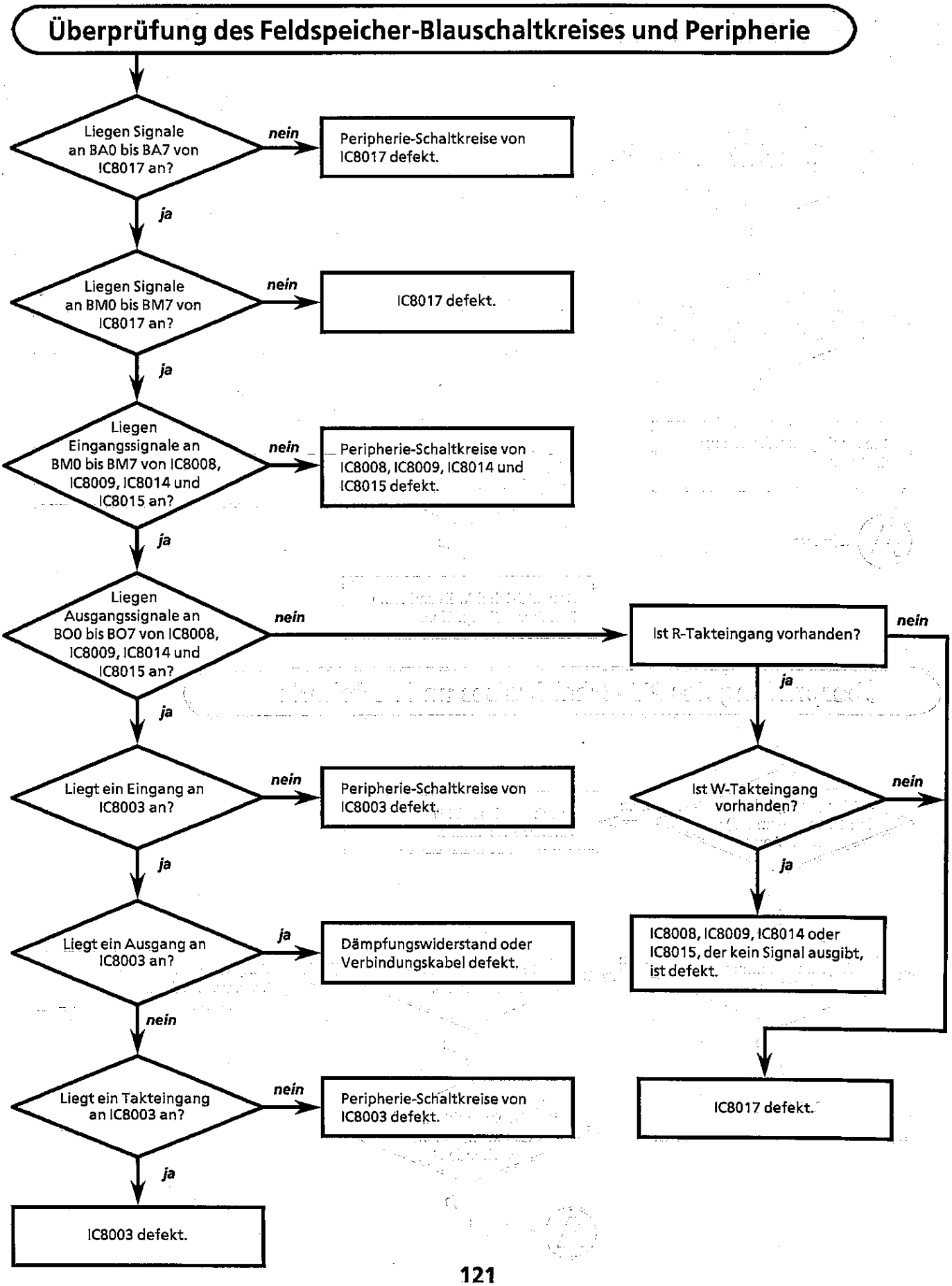
STÖRUNGSSUCHE FÜR PC-SCHNITTSTELLENPLATINE

(fortgesetzt)

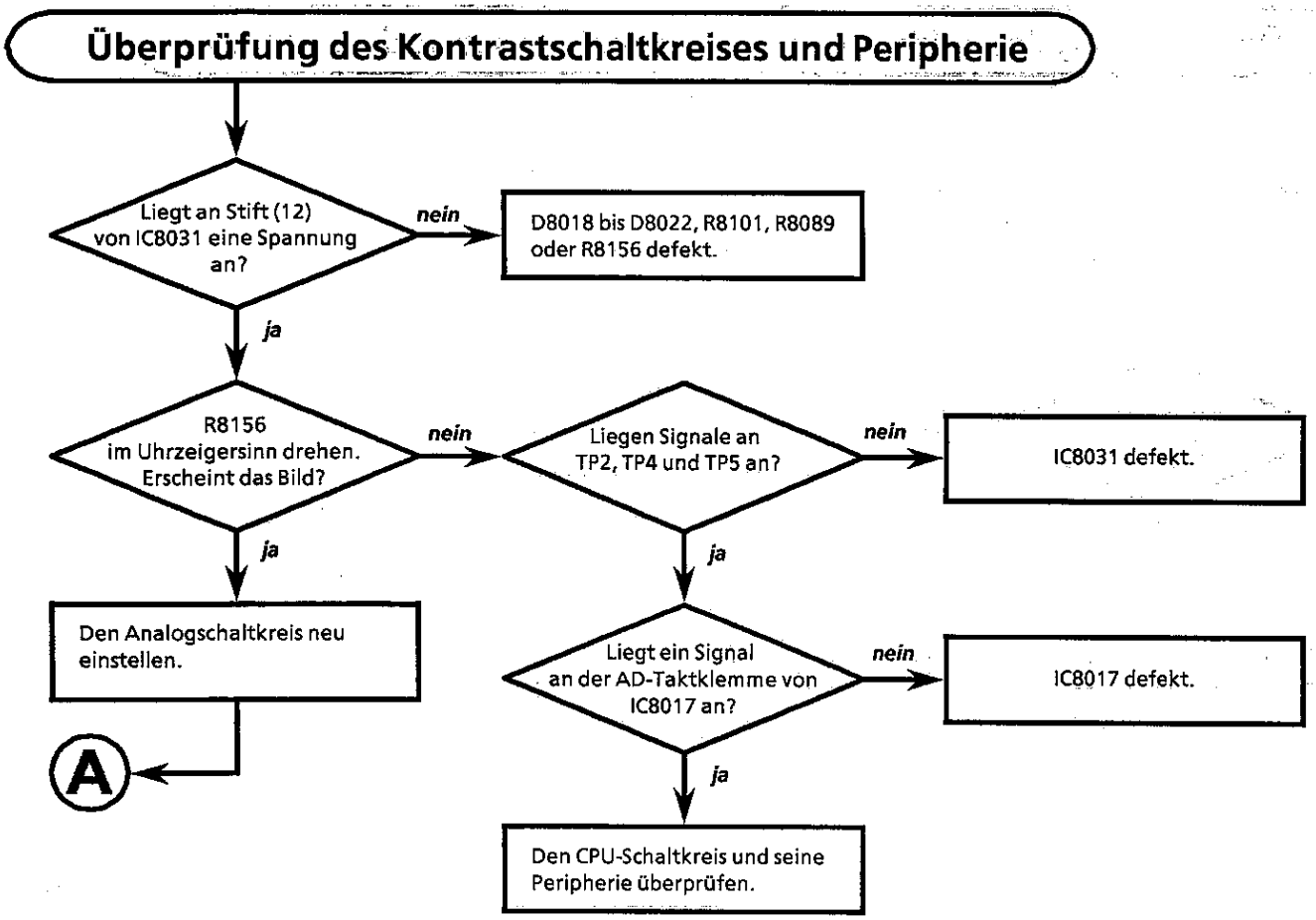


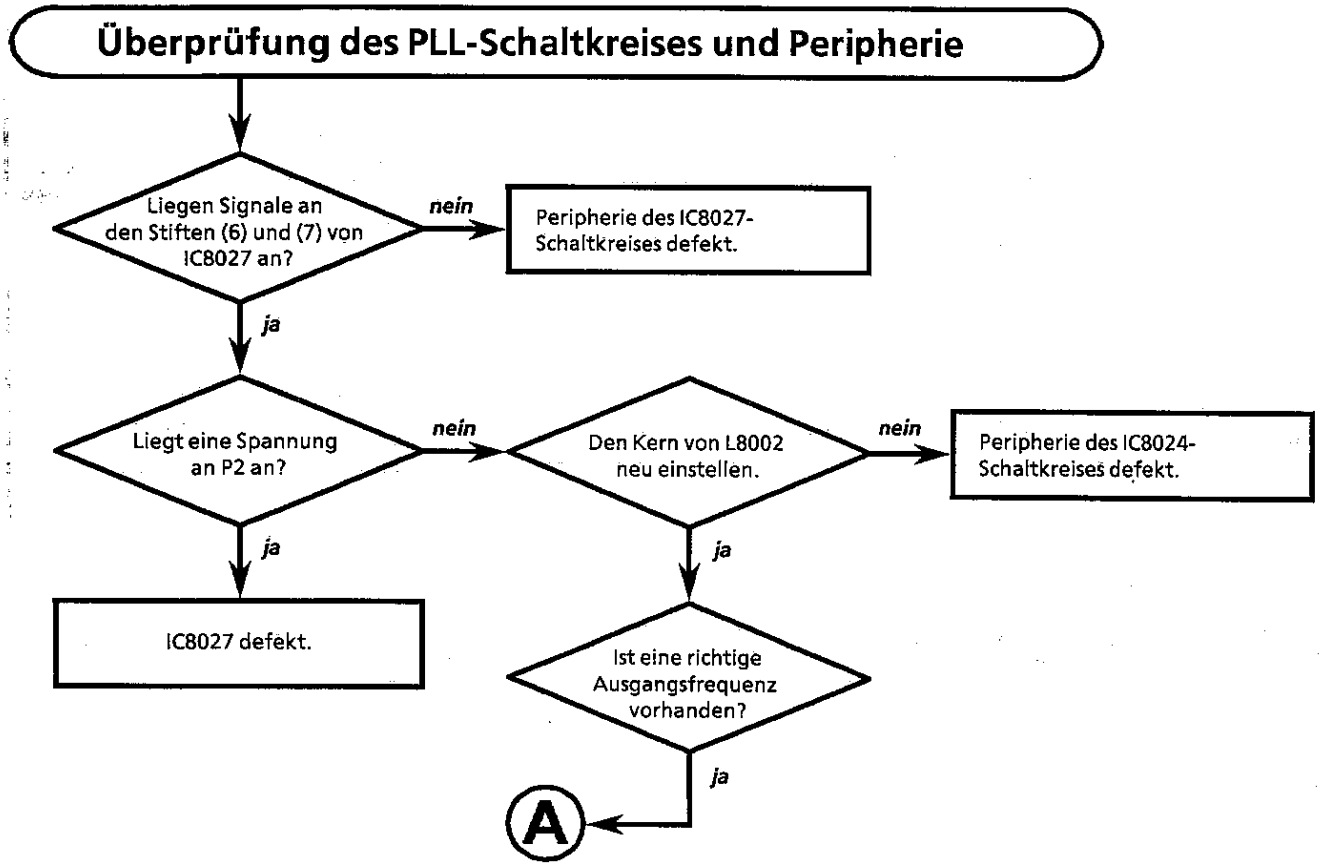
STÖRUNGSSUCHE FÜR PC-SCHNITTSTELLENPLATINE

(fortgesetzt)



STÖRUNGSSUCHE FÜR PC-SCHNITTSTELLENPLATINE
(fortgesetzt)

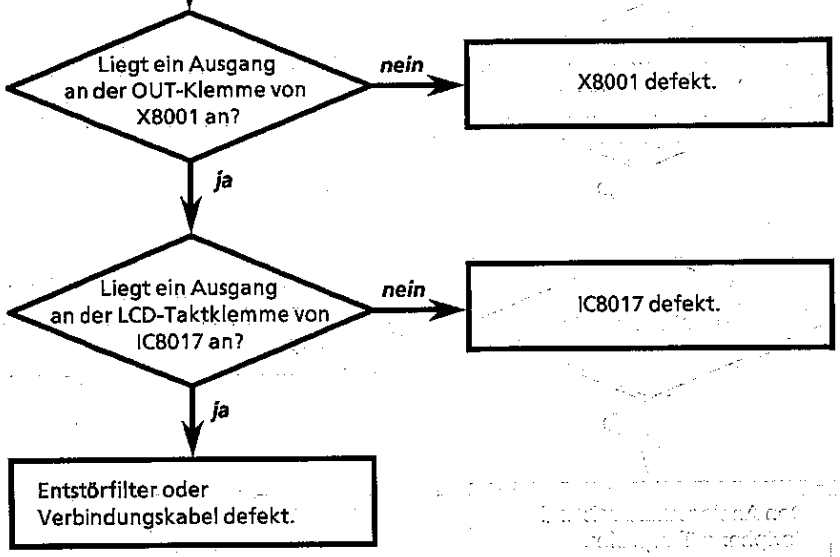




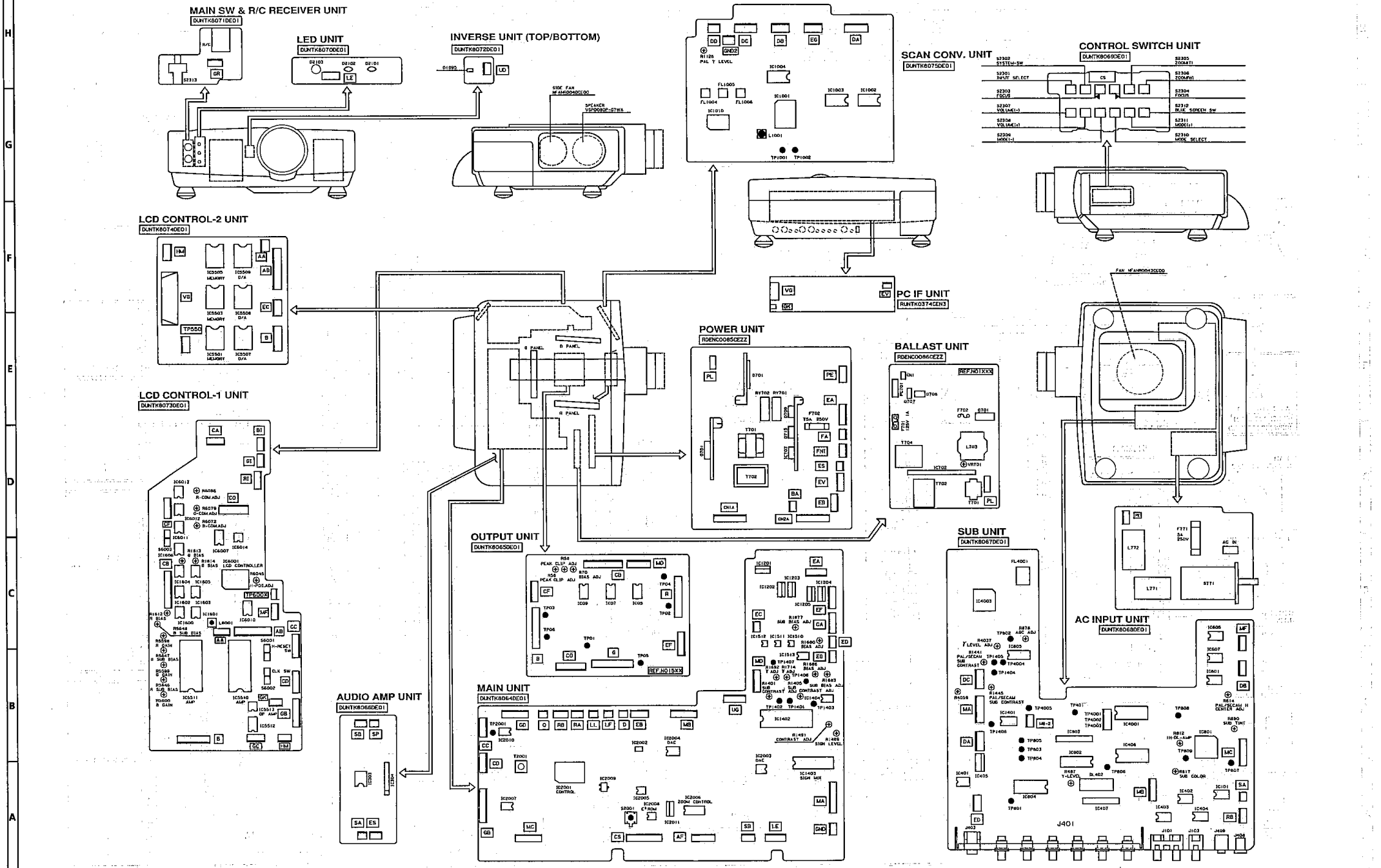
STÖRUNGSSUCHE FÜR PC-SCHNITTSTELLENPLATINE

(fortgesetzt)

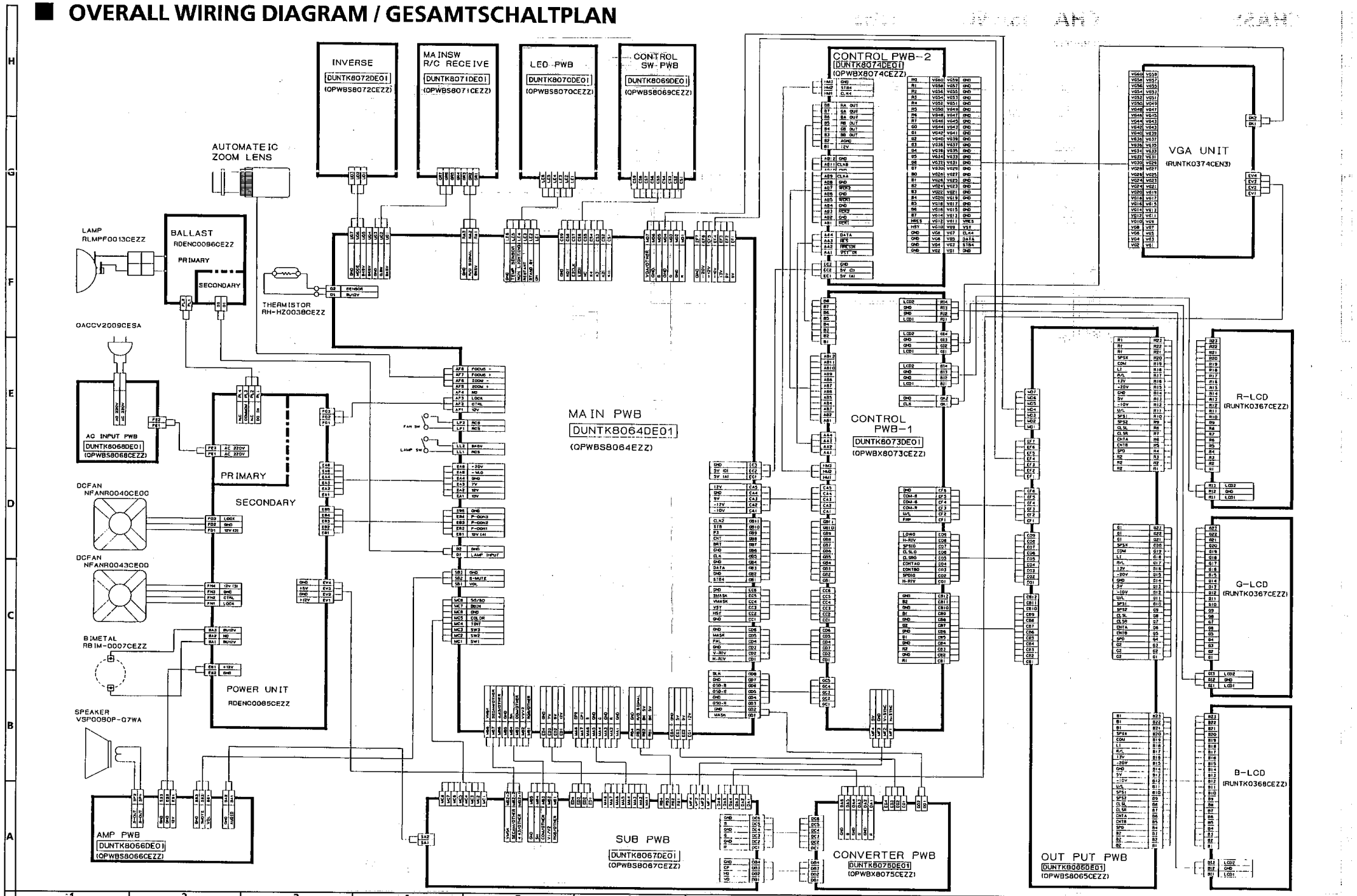
Überprüfung des Taktschaltkreises und Peripherie



CHASSIS LAYOUT / CHASSISANORDNUNGSPLAN

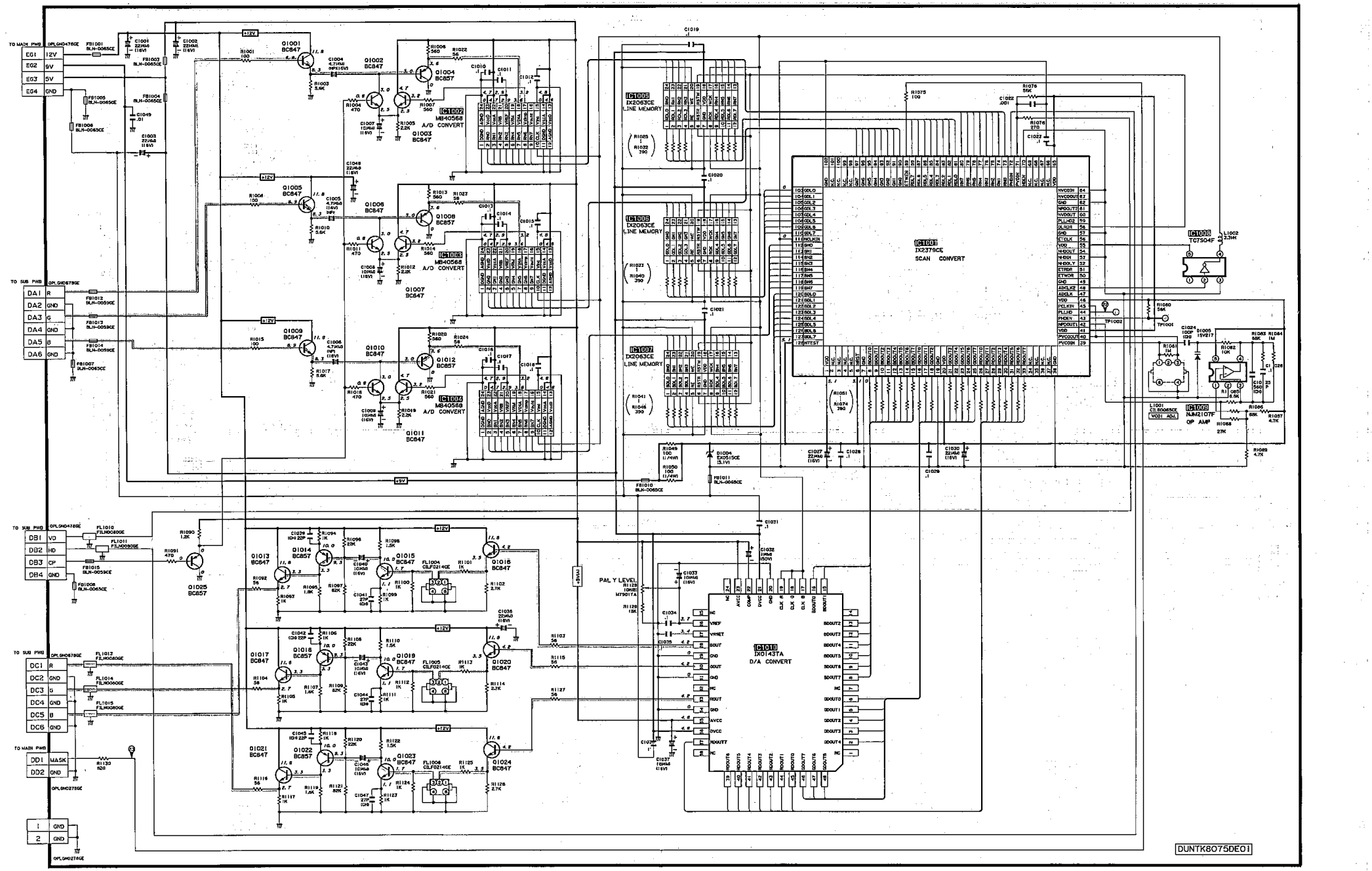


■ OVERALL WIRING DIAGRAM / GESAMTSCHALTPLAN



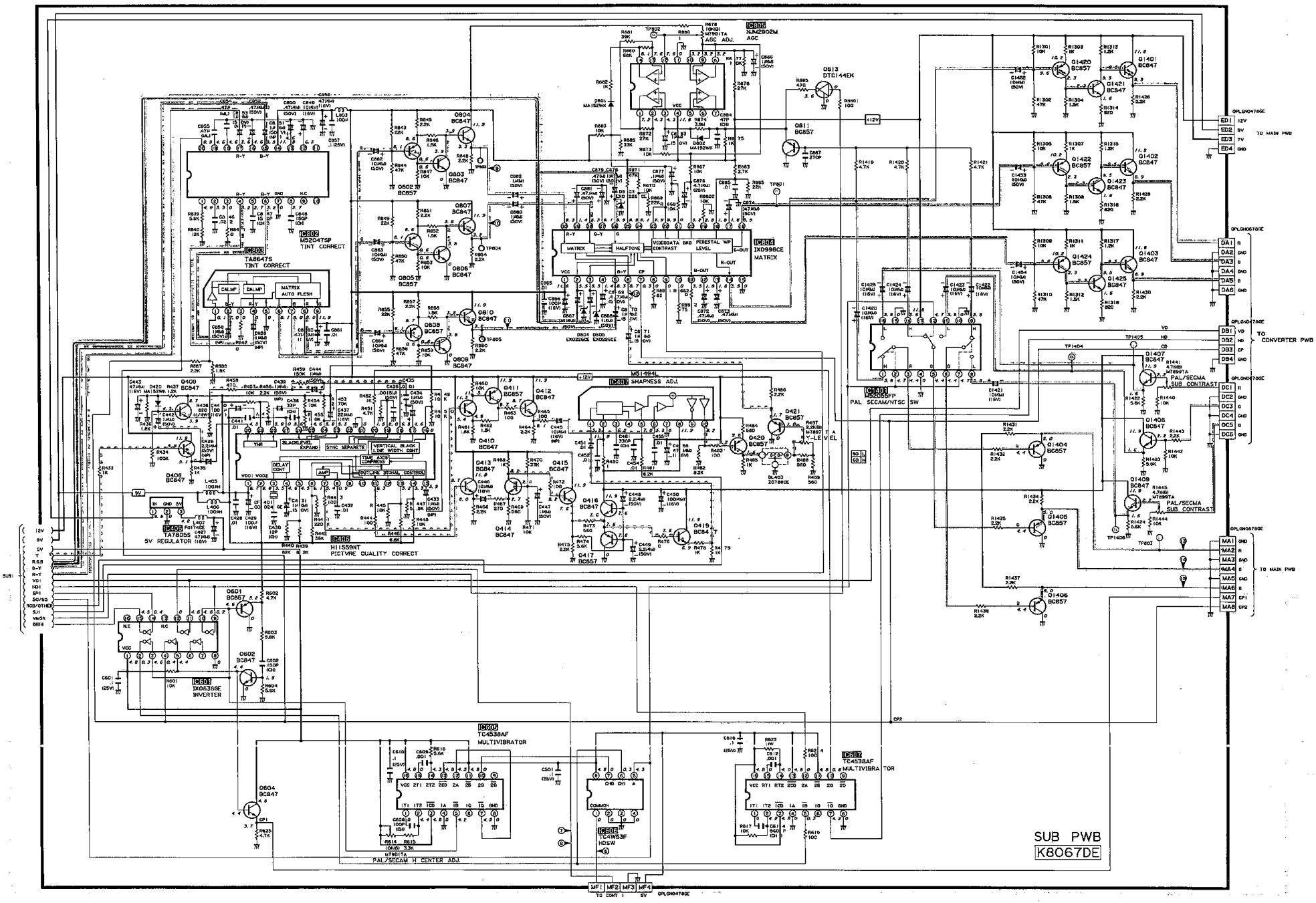
■ CONVERTER UNIT / KONVERTER-EINHEIT

R Signal G Signal B Signal



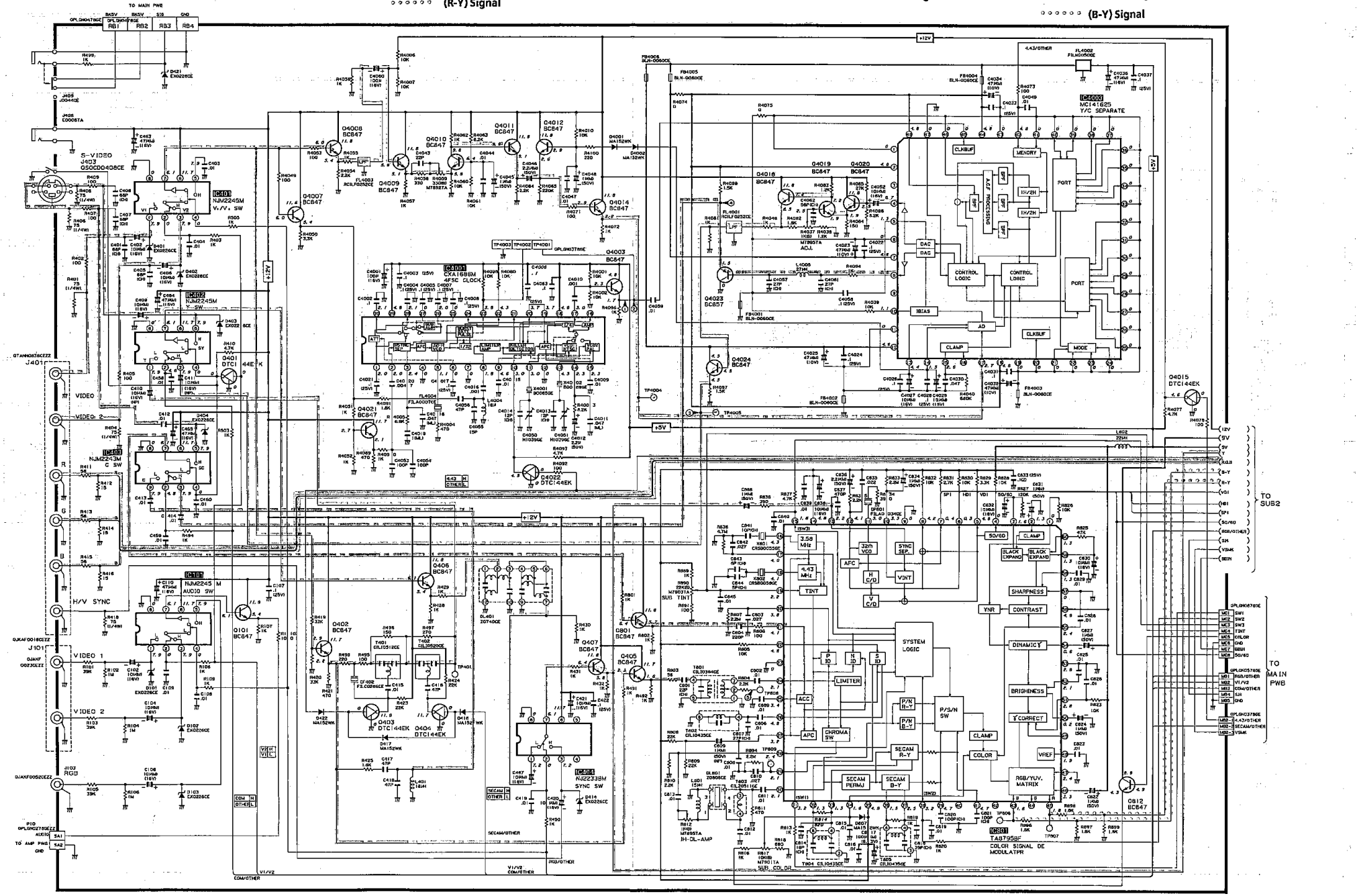
R Signal (R-Y) Signal G Signal (G-Y) Signal B Signal (B-Y) Signal Luminance Signal/ Luminanzsignal

SUB UNIT-2 / UNTER-EINHEIT-2



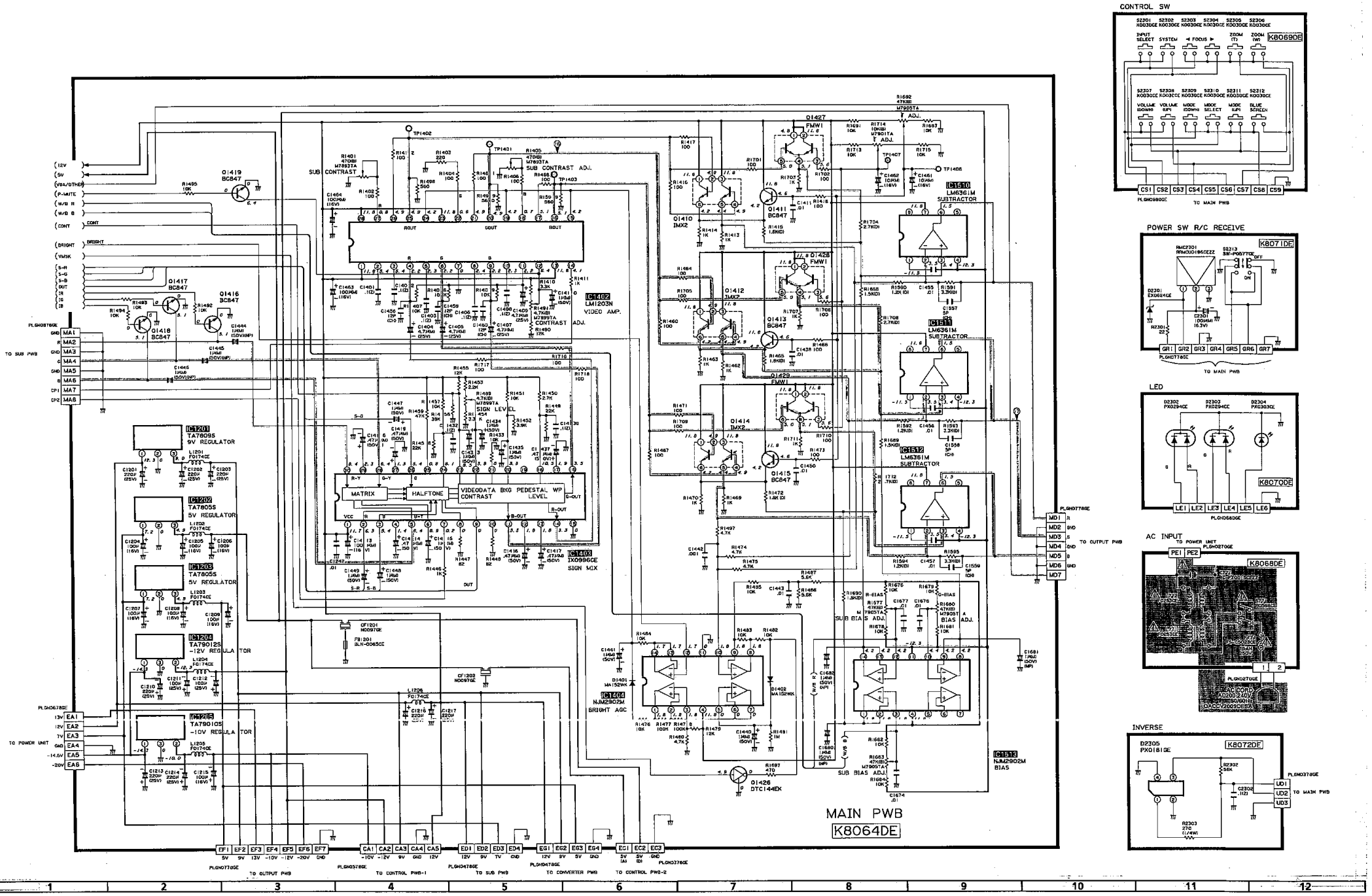
SUB UNIT-1 / UNTER-EINHEIT-1

R Signal
Video Signal/ Videosignal
(R-Y) Signal
G Signal
Chrominance Signal/ Chrominanzsignal
B Signal
Luminance Signal/ Luminanzsignal
(B-Y) Signal

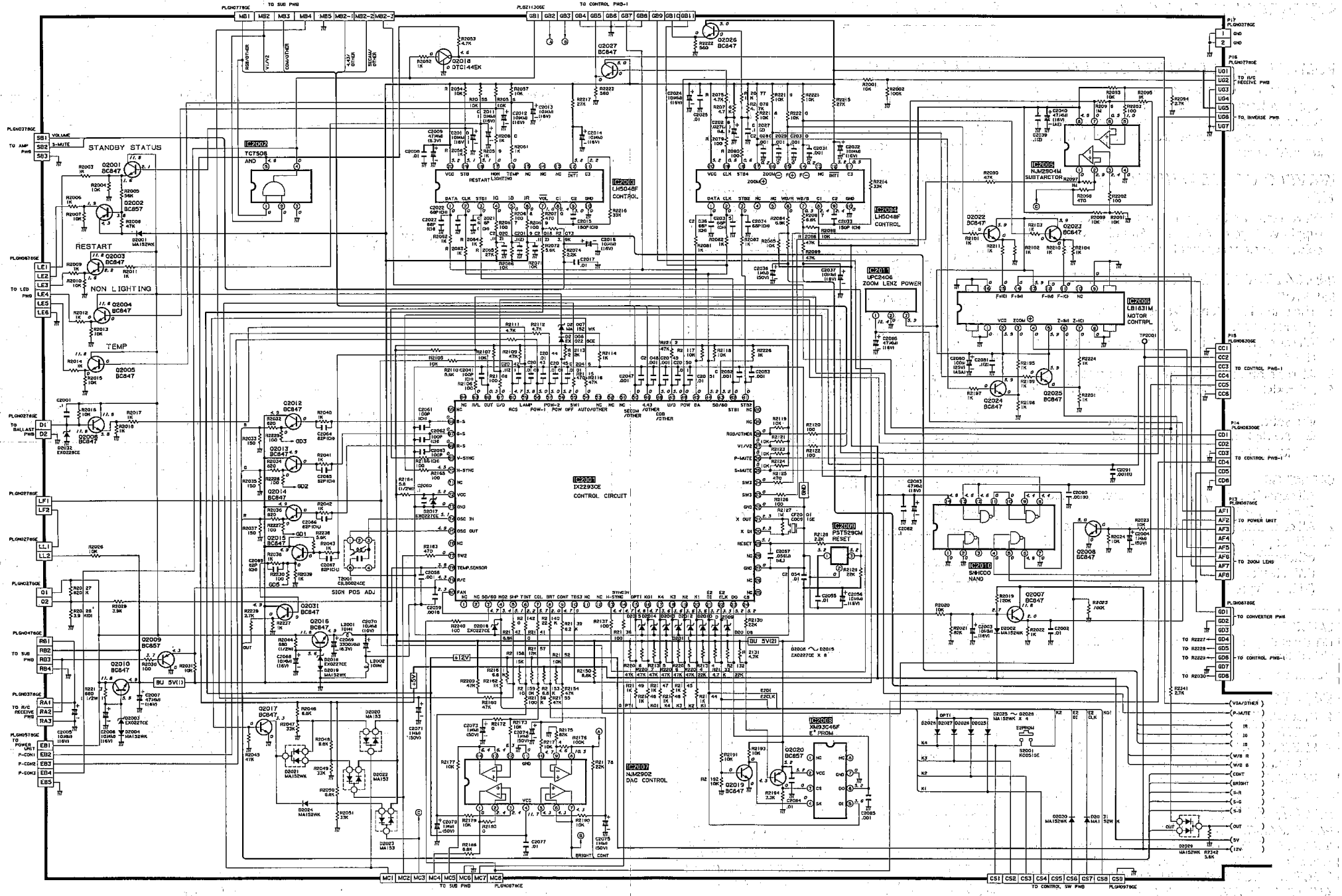


■ MAIN UNIT-2 / HAUPT-EINHEIT-2

R Signal — G Signal — B Signal



■ MAIN UNIT-1 / HAUPT-EINHEIT-1



DESCRIPTION OF SCHEMATIC DIAGRAM

VOLTAGE MEASUREMENT CONDITION:

1. Voltages at test points are measured at the supply voltage of AC 220V. Signals are fed by a colour bar signal generator for servicing purpose and the above voltages are measured with a 20-kohm/V tester.

WAVEFORM MEASUREMENT CONDITION:

1. Waveforms at test points are observed at the supply voltage of AC 220V. Signals are fed by a colour bar signal generator for servicing purpose.

INDICATION OF RESISTOR & CAPACITOR:

RESISTOR

1. The unit of resistance "Ω" is omitted. (K = kΩ = 1000 Ω, M = MΩ).
2. All resistors are ± 10%, unless otherwise noted. (J = ± 5%)
3. All resistors are 1/8W, unless otherwise noted.
4. All resistors are Carbon type, unless otherwise noted.
   - Ⓒ: Solid
   - Ⓜ: Cement
   - Ⓢ: Oxide Film
   - Ⓣ: Special
   - Ⓝ: Metal Coating

CAPACITOR

1. All capacitors are μF, unless otherwise noted. (P = pF = μμF).
2. All capacitios are 50V, unless otherwise noted.
3. All capacitios are Ceramic type, unless otherwise noted.
   - (ML): Mylar
   - (TA): Tantalum
   - (PF): Polypro Film
   - (ST): Styrol

CAUTION:
This circuit diagram is original one, therefore there may be a slight difference from yours.

SAFETY NOTE:

1. *DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACEING PARTS.*
2. *SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.*

IMPORTANT SAFETY NOTICE:

PARTS MARKED WITH "⚠" (▒▒▒▒▒) ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

BESCHREIBUNG DES SCHEMATISCHEN SCHALTPLANS

SPANNUNGSMESSUNGEN:

1. Spannungen an den Prüfpunkten werden bei einer Netzspannung von 220 V gemessen, Signale werden für die Wartung mit einem Farbbalken-Signal generator zugeführt, und Spannungen werden mit einem Meßinstrument (20 kΩ/V) ermittelt.

SIGNALFORMMESSUNGEN:

1. Die Wellenformen an den Testpunkten werden bei einer Netzspannung von 220 V verfolgt. Signale werden für die Wartung mit einem Farbbalken-Signal generator zugeführt.

BEZEICHNUNG DES WIDERSTANDS UND KONDENSATORS:

WIDERSTAND

1. Die Widerstandseinheit "Ω" wird weggelassen. (K = kΩ = 1000 Ω, M = MΩ).
2. Alle Widerstände haben ± 10%, sofern nicht anders angegeben. (J = ± 5%)
3. Alle Widerstände haben 1/8W, sofern nicht anders angegeben.
4. Alle Widerstände sind Kohletyp, sofern nicht anders angegeben.
   - Ⓒ: Fest
   - Ⓜ: Zement
   - Ⓢ: Oxidfilm
   - Ⓣ: Spezial
   - Ⓝ: Metallüberzug

KONDENSATOR

1. Die Kapazitätseinheit ist μF, sofern nicht anders angegeben. (P = pF = μμF).
2. Alle Kondensatoren haben 50V, sofern nicht anders angegeben.
3. Alle Kondensatoren sind Keramiktyp, sofern nicht anders angegeben.
   - (ML): Mylar
   - (TA): Tantal
   - (PF): Polyprofilm
   - (ST): Styrol

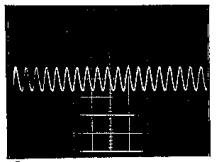
ACHTUNG:
bei diesem Schaltplan handelt es sich um den ursprünglichen. Esönnen daher geringfügige Unterschiede zu dem Ihrem bestehen.

SICHERHEITSANMERKUNGEN:

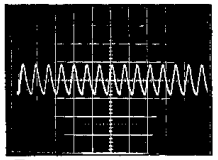
1. *VOR DEM AUSWECHSELN VON TEILEN MUSS UNBEDINGT NETZSTECKER AUS DER NETZSTECKDOSE GEZOGEN WERDEN.*
2. *DIE WARMEABLEITER DER HALBLEITER SOLLTEN BEIM BETRIEB DES CHASSIS ALS MÖGLICHE URSACHEN VON GEFÄHRLICHEN ELEKTRISCHEN SCHLÄGEN BETRACHTET WERDEN.*

WICHTIGE SICHERHEITSANMERKUNGEN:

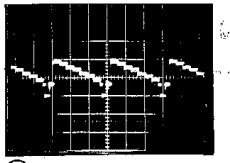
MIT "⚠" (▒▒▒▒▒) BEZEICHNETEN TEILE SIND BESONDERS WICHTIG FÜR DIE AUFRECHTERHALTUNG DER SICHERHEIT. BEIM WECHDIESER TEILE SOLLTEN DIE VORGESCHRIEBENEN TEILE IMMER VERWENDET WERDEN, UM SOWOHL DIE SICHERHEIT ALS AUCH DIE LEISTUNG DES GERÄTES AUFRECHTZUERHALTEN.



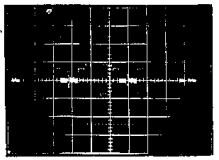
① Q4003 (E)
H : 0.1μsec/div
V : 1V/div
4fsc clock (PAL)



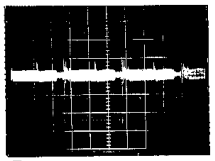
② Q4003 (E)
H : 0.1μsec/div
V : 1V/div
4fsc clock (3.58NTSC)



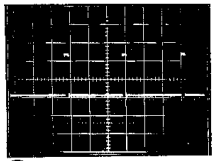
③ Q4024 (E)
H : 20μsec/div
V : 0.5V/div
Y-Signal



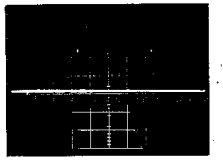
④ Q4023 (E)
H : 20μsec/div
V : 0.1V/div
C-Signal



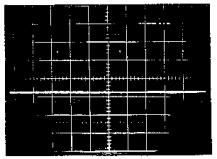
⑤ TP808
H : 20μsec/div
V : 50mV/div
BELL FILTER (SECAM COLOR BAR)



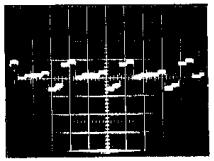
⑥ MF Pin (1)
H : 20μsec/div
V : 2V/div
H-Sync



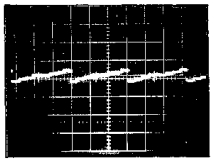
⑦ MF Pin (2)
H : 5msec/div
V : 2V/div
V-Sync (PAL, SECAM)



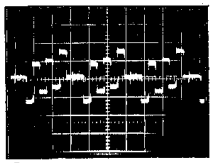
⑧ MF Pin (2)
H : 5msec/div
V : 2V/div
V-Sync (3.58NTSC, 4.43NTSC)



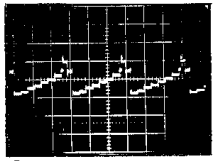
⑨ TP803
H : 20μsec/div
V : 0.5V/div
R-Y Signal



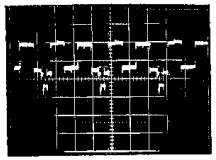
⑩ TP804
H : 20μsec/div
V : 0.5V/div
G-Y Signal



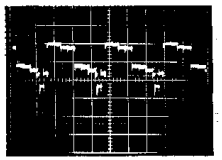
⑪ TP805
H : 20μsec/div
V : 0.5V/div
B-Y Signal



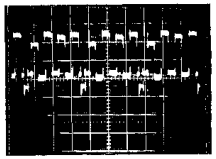
⑫ Pin (6) of IC804
H : 20μsec/div
V : 0.5V/div
Y-Signal



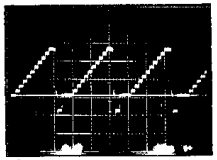
⑬ MA Pin (2)
H : 20μsec/div
V : 0.5V/div
R-Signal



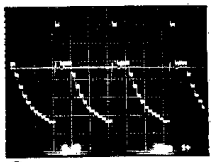
⑭ MA Pin (4)
H : 20μsec/div
V : 0.5V/div
G-Signal



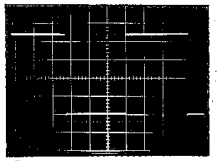
⑮ MA Pin (6)
H : 20μsec/div
V : 0.5V/div
B-Signal



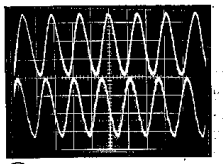
⑯ TP1401
H : 20μsec/div
V : 1V/div
Before γ correction (10Step)



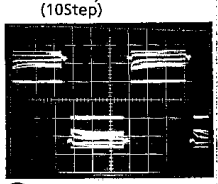
⑰ MD Pin (3)
H : 20μsec/div
V : 1V/div
After γ correction (10Step)



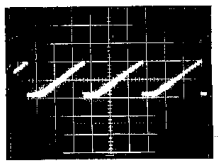
⑱ CF Pin (1)
H : 5msec/div
V : 1V/div
FRP



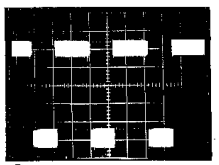
⑲ •CH1 (upper) GI Pin (1)
•CH2 (lower) GI Pin (4)
H : 0.1μsec/div
V : 0.2V/div
LCD clock



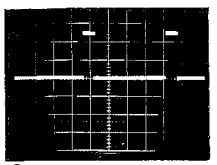
⑳ TP1501
H : 5msec/div
V : 2V/div
OUTPUT signal



㉑ B Pin (3)
H : 20μsec/div
V : 0.5V/div
(Computer Gray Scale)

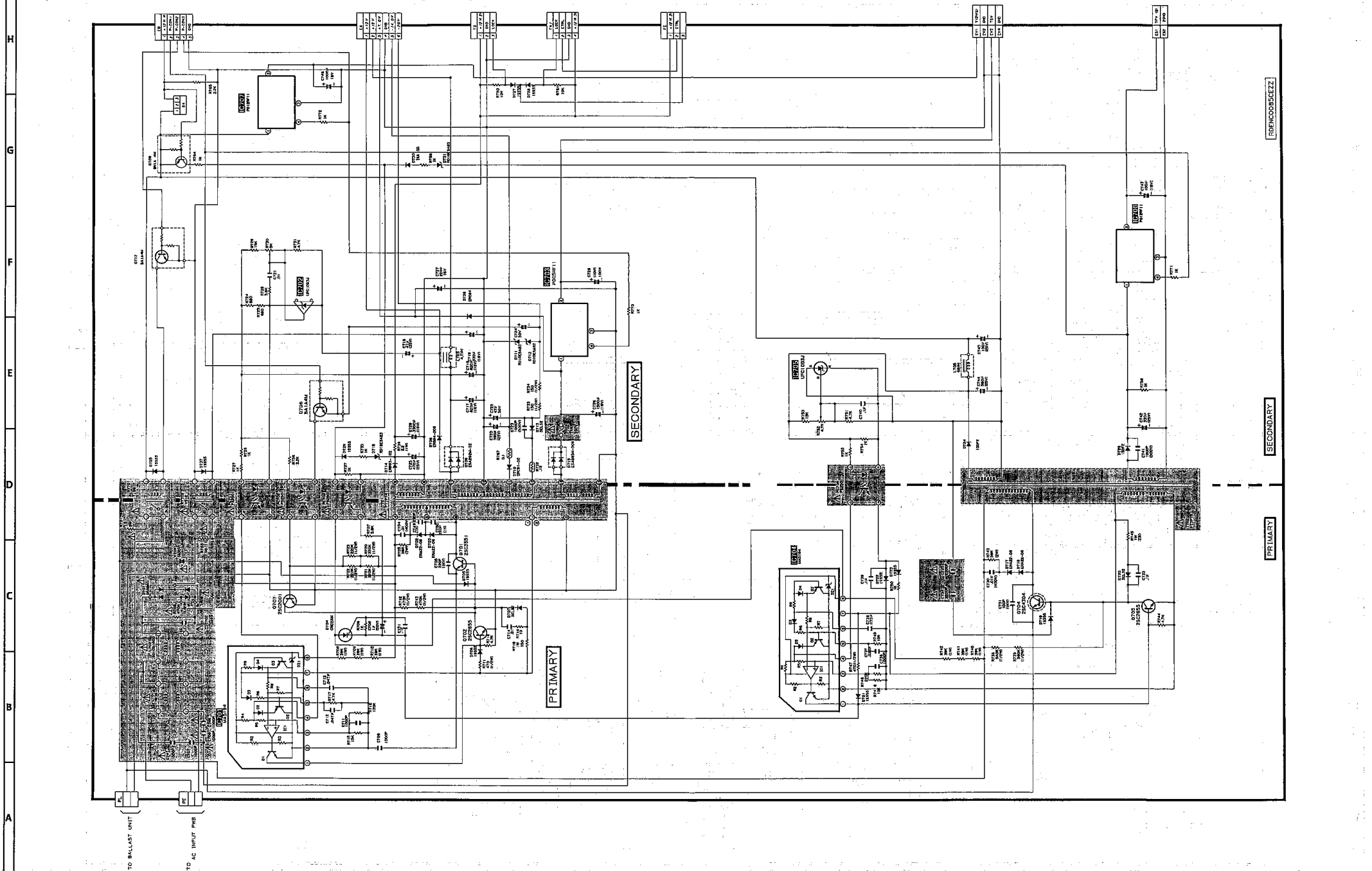


㉒ TP1002
H : 20μsec/div
V : 1V/div
PLL HD

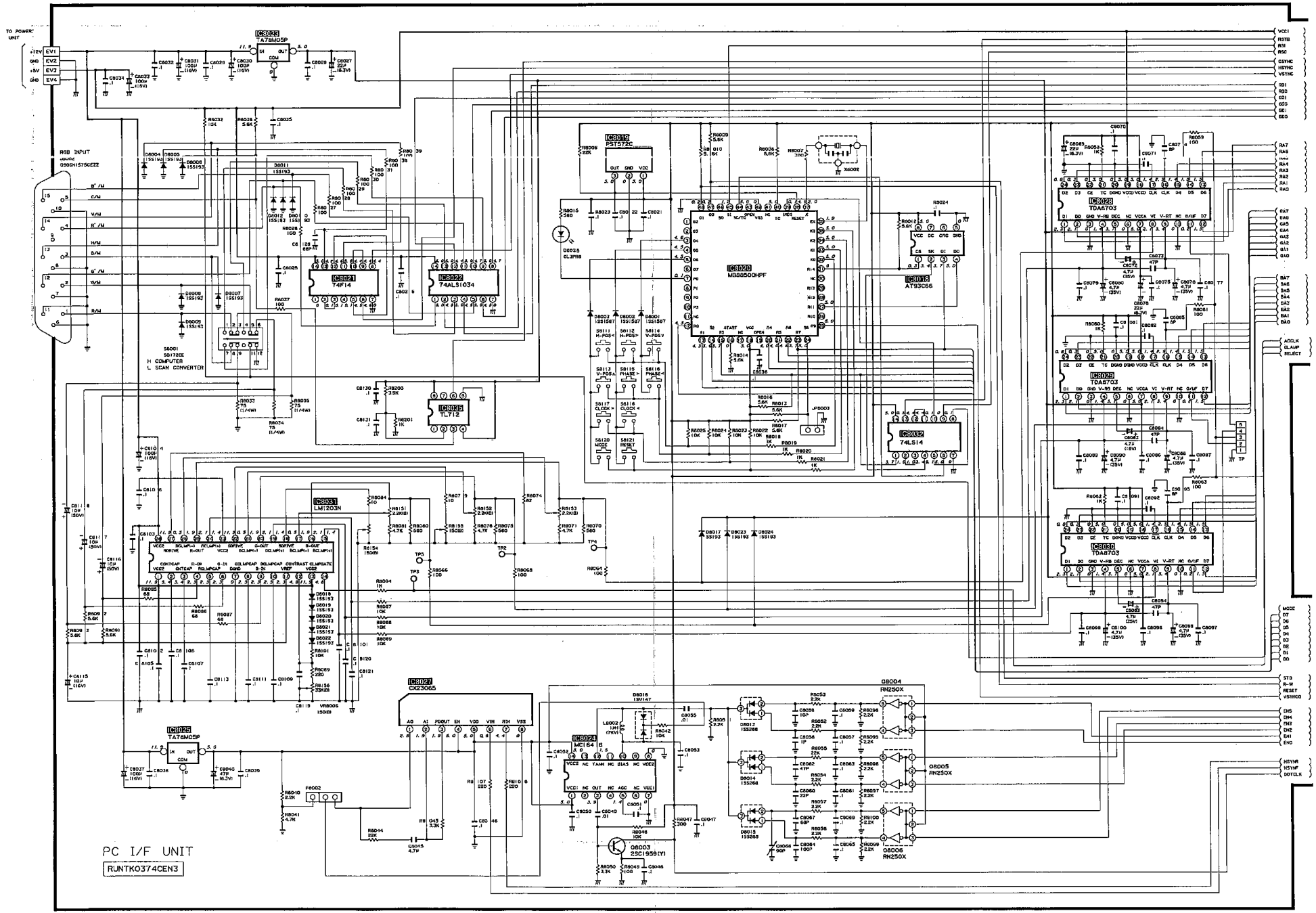


㉓ DD Pin (1)
H : 0.1msec/div
V : 2V/div
MASK

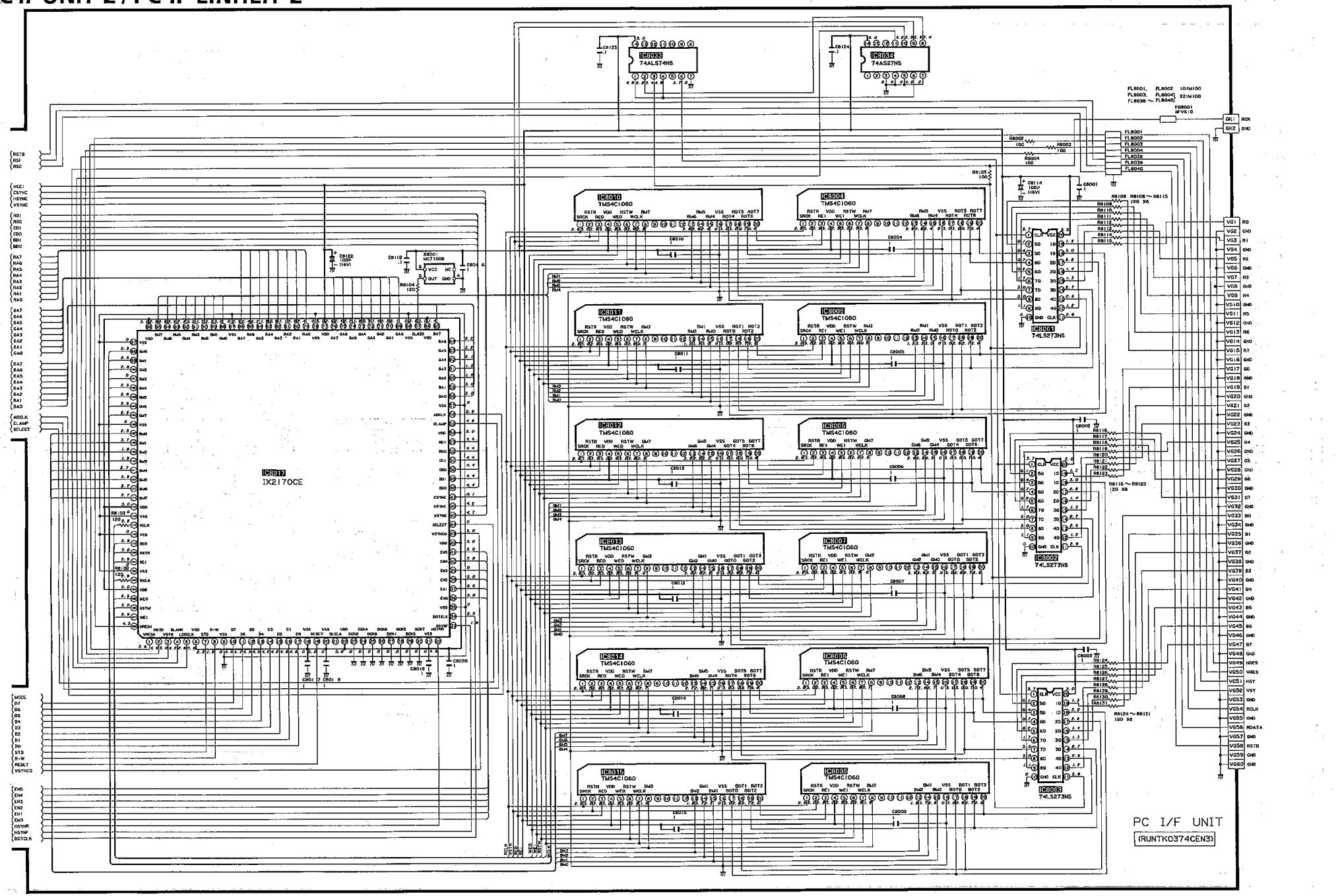
■ POWER UNIT / SPANNUNGSVERSORGUNGS-EINHEIT



PC IF UNIT-1 / PC-IF-EINHEIT-1

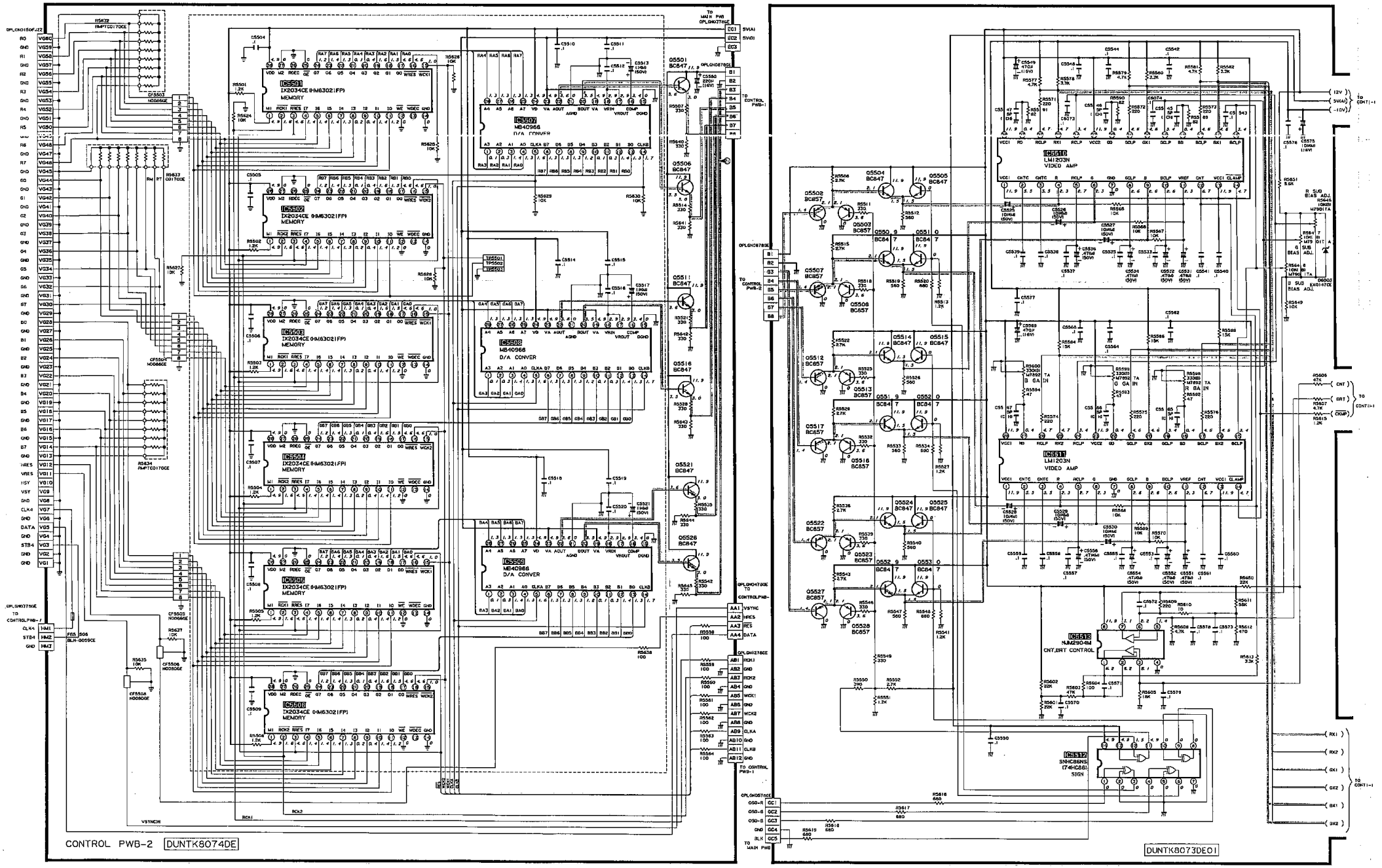


■ PC IF UNIT-2 / PC-IF-EINHEIT-2



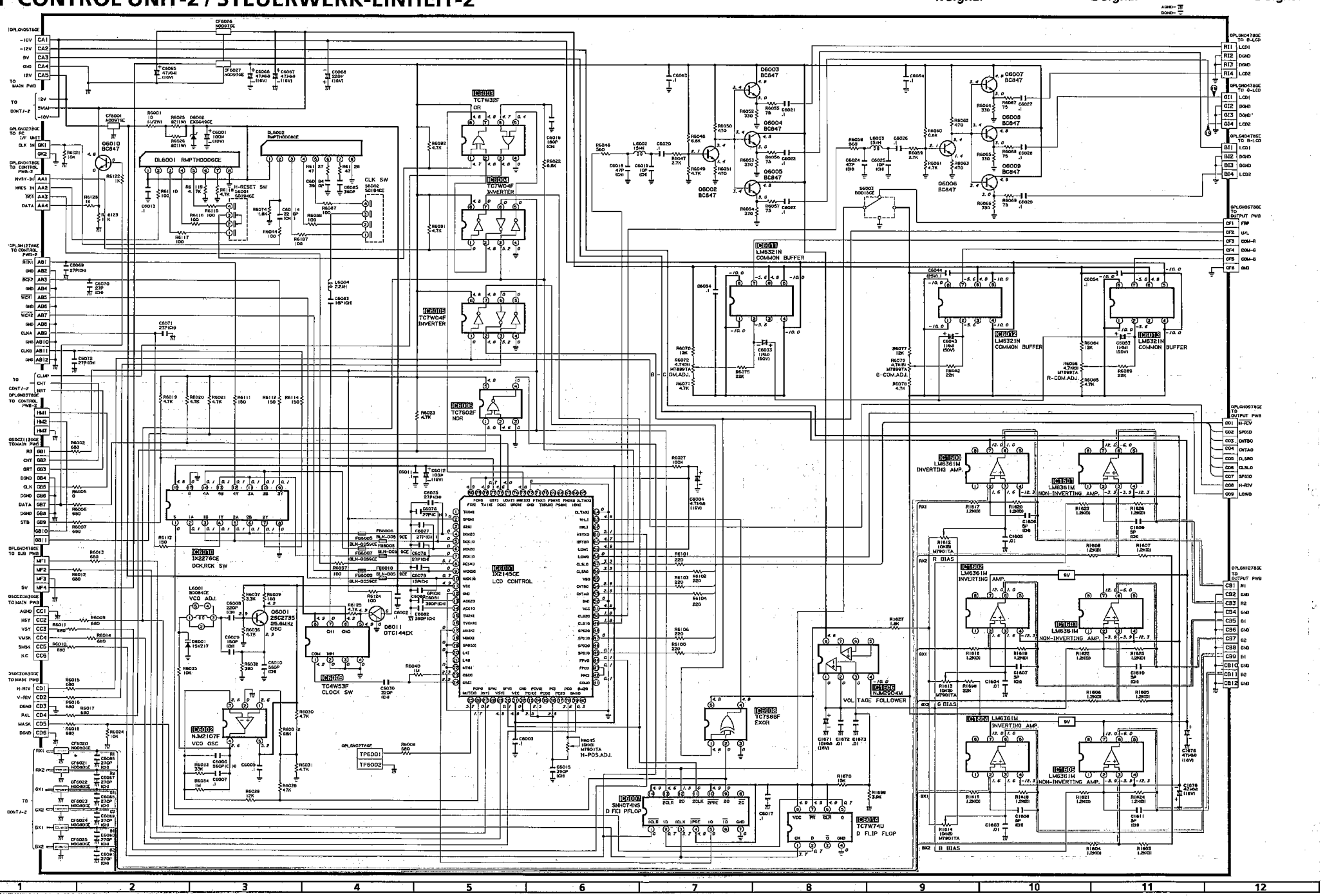
■ CONTROL UNIT-1 / STEUERWERK-EINHEIT-1

R Signal G Signal B Signal



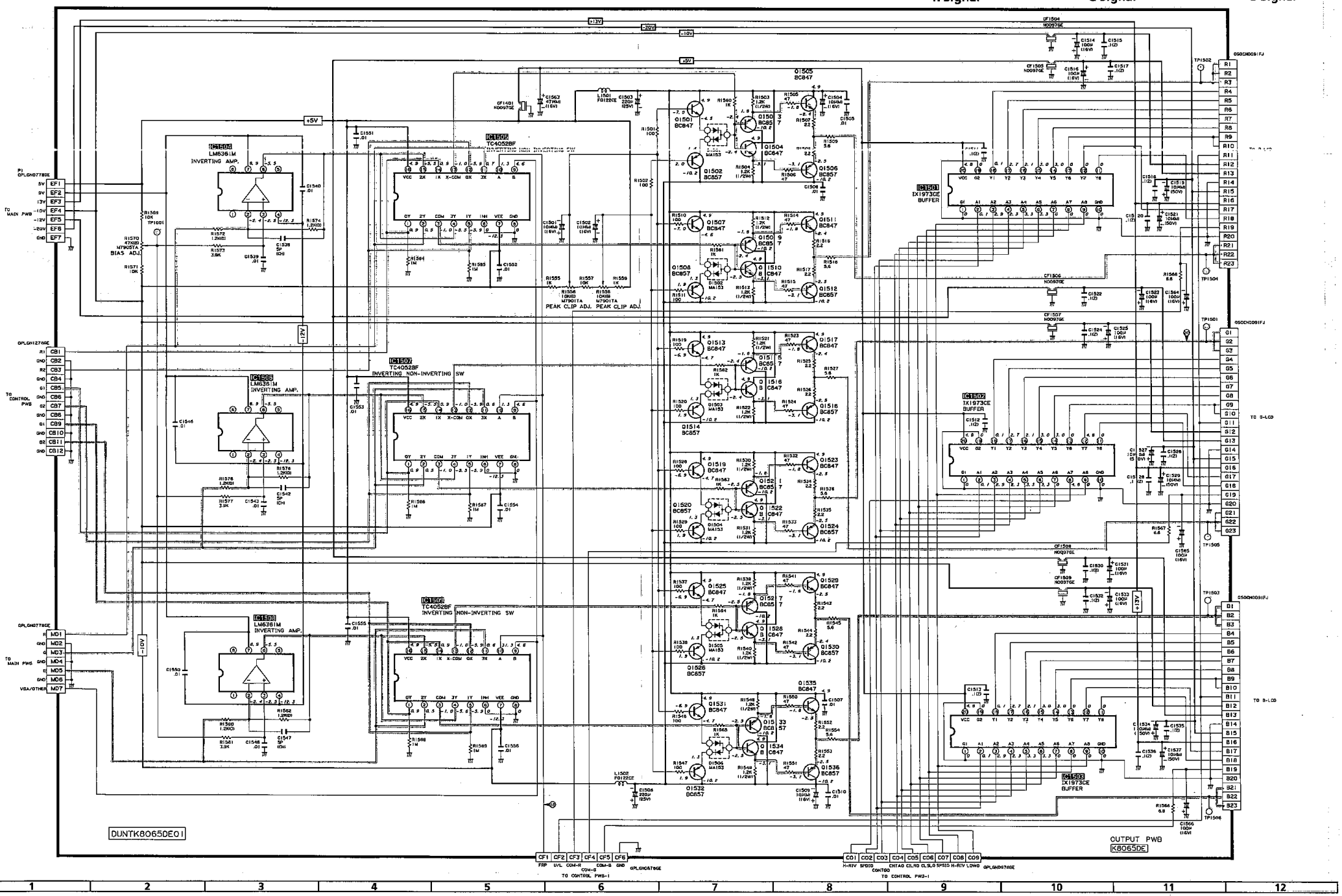
CONTROL UNIT-2 / STEUERWERK-EINHEIT-2

R Signal G Signal B Signal

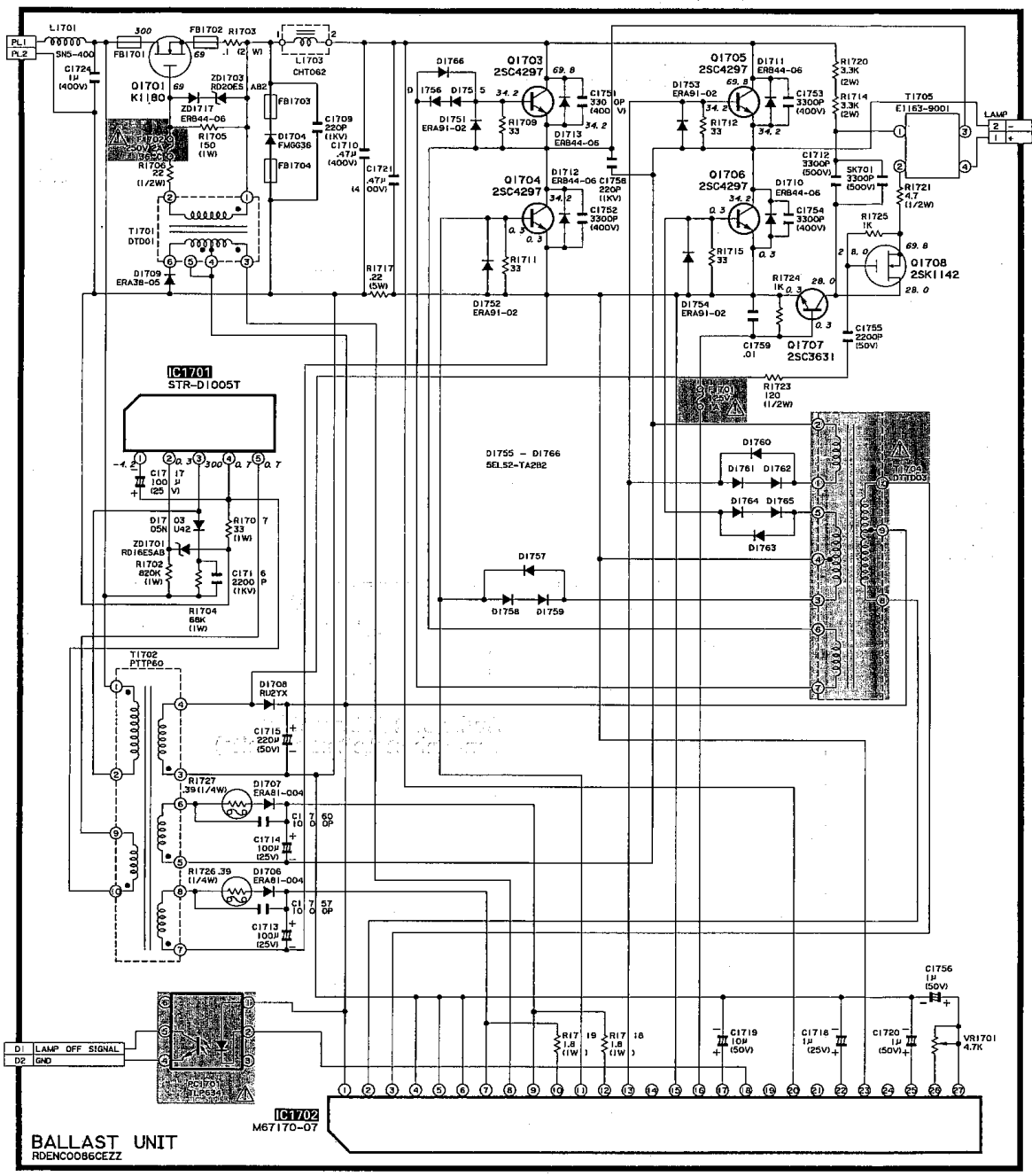


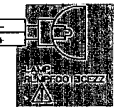
OUTPUT UNIT / AUSGANGS -EINHEIT

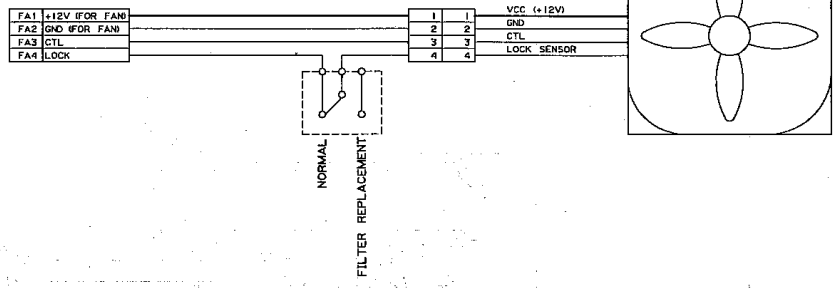
R Signal G Signal B Signal



■ BALLAST UNIT / VORSCHAL TGERÄT-EINHEIT





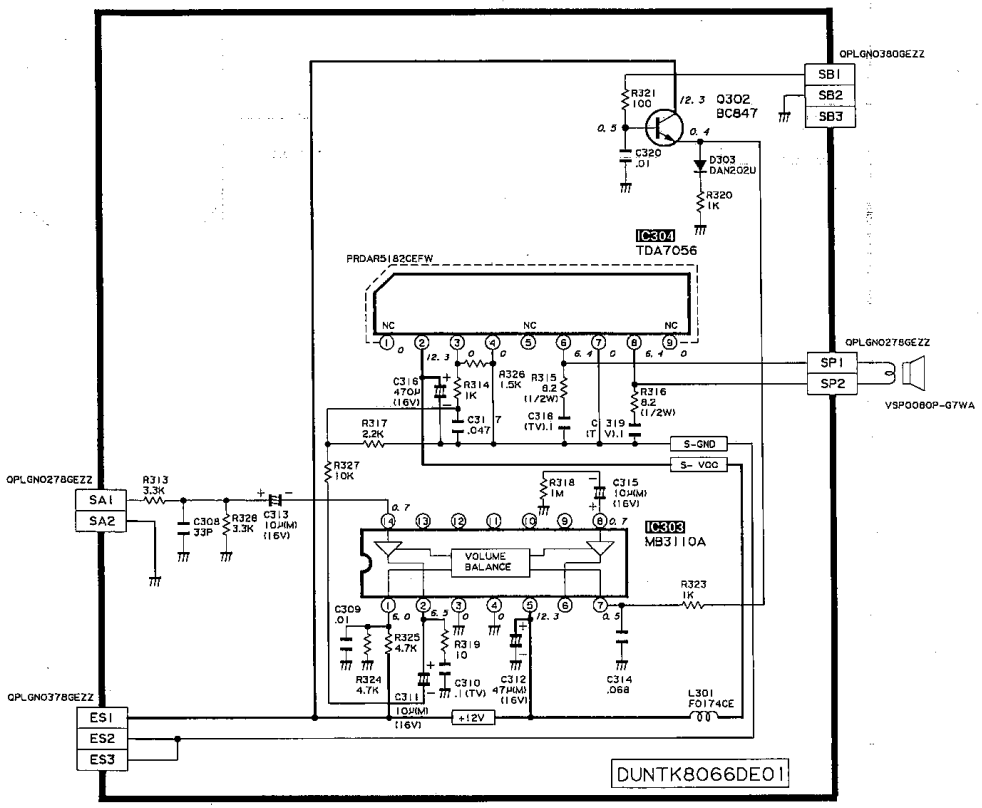


FILTER REPLACEMENT SWITCH

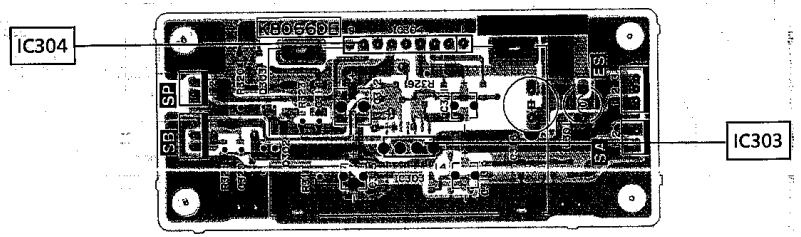
IC1702 PIN VOLTAGE

①	13.7	⑥	13.6	⑮	0.3	㉒	1.2
②	12.0	⑨	41.2	⑯	0.3	㉓	0.3
③	12.0	⑭	6.3	⑰	3.2	㉔	
④	0	⑪	8.3	⑱	15.0	㉕	0.7
⑤	0	⑫	41.1	⑲		㉖	0.3
⑥	0	⑬	35.4	⑳	59.1	㉗	2.7
⑦	6.3	⑭	0	㉑			

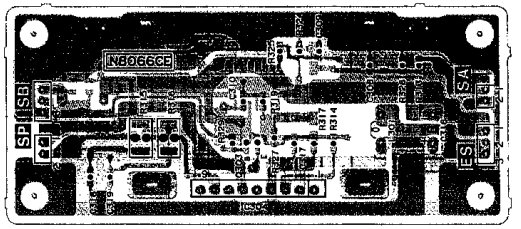
■ AUDIO UNIT / TON-EINHEIT



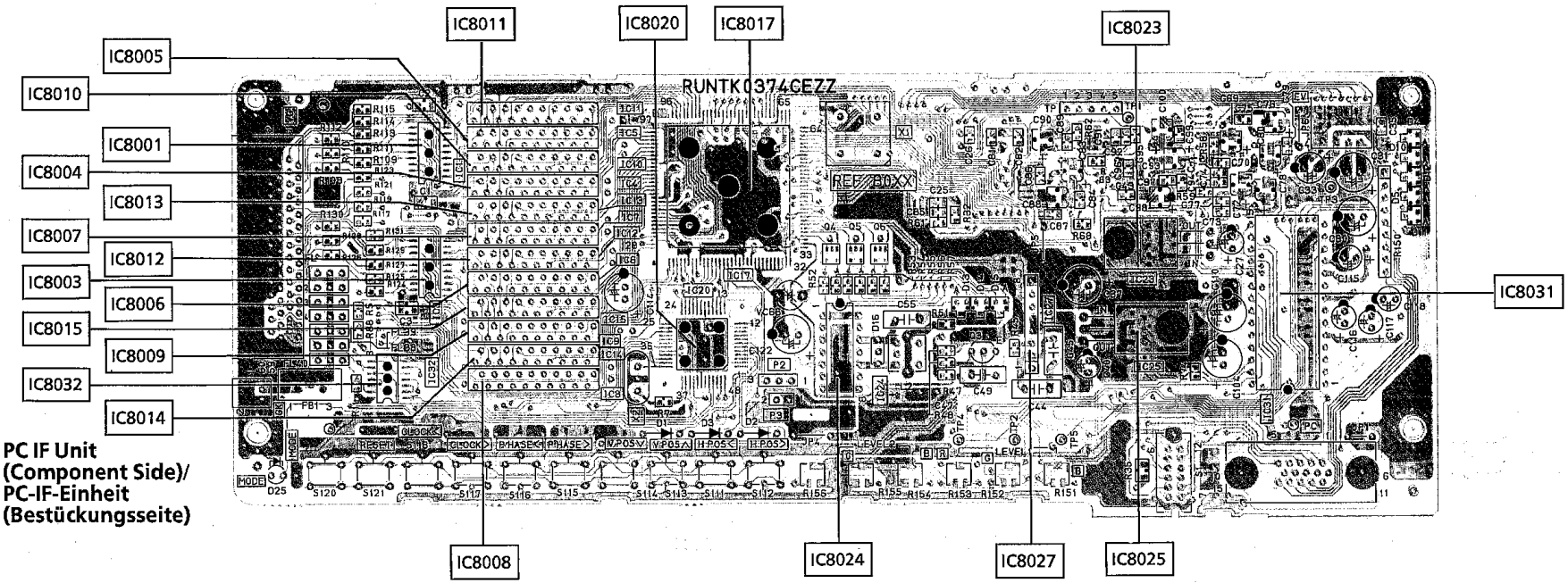
PRINTED WIRING BOARD ASSEMBLIES/ LEITERPLATTENEINHEITEN



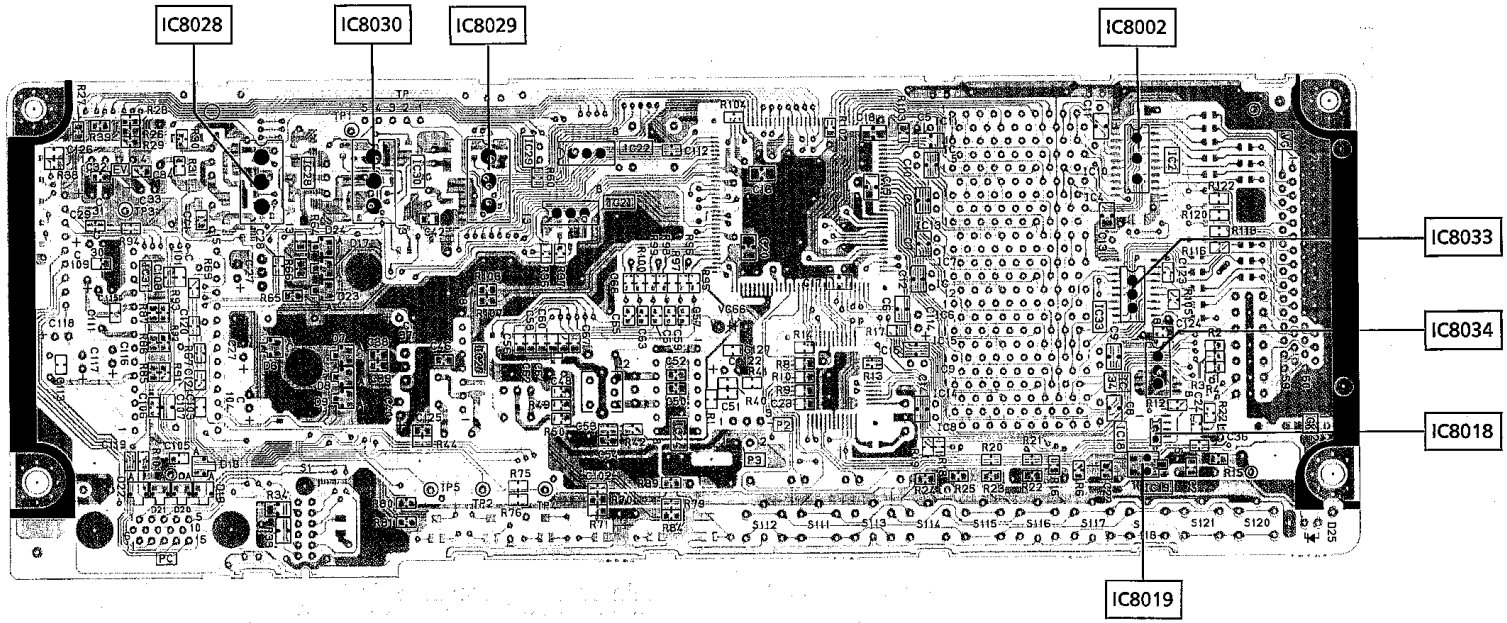
Audio Unit (Component Side)/ Ton-Einheit (Bestückungsseite)



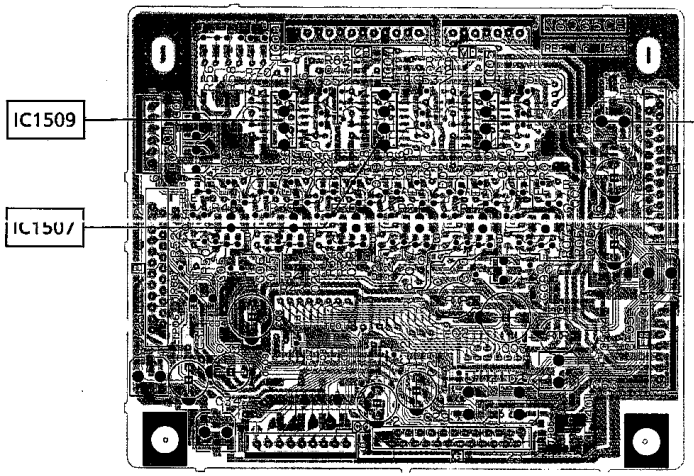
Audio Unit (Wiring Side)/ Ton-Einheit (Leiterbahnseite)



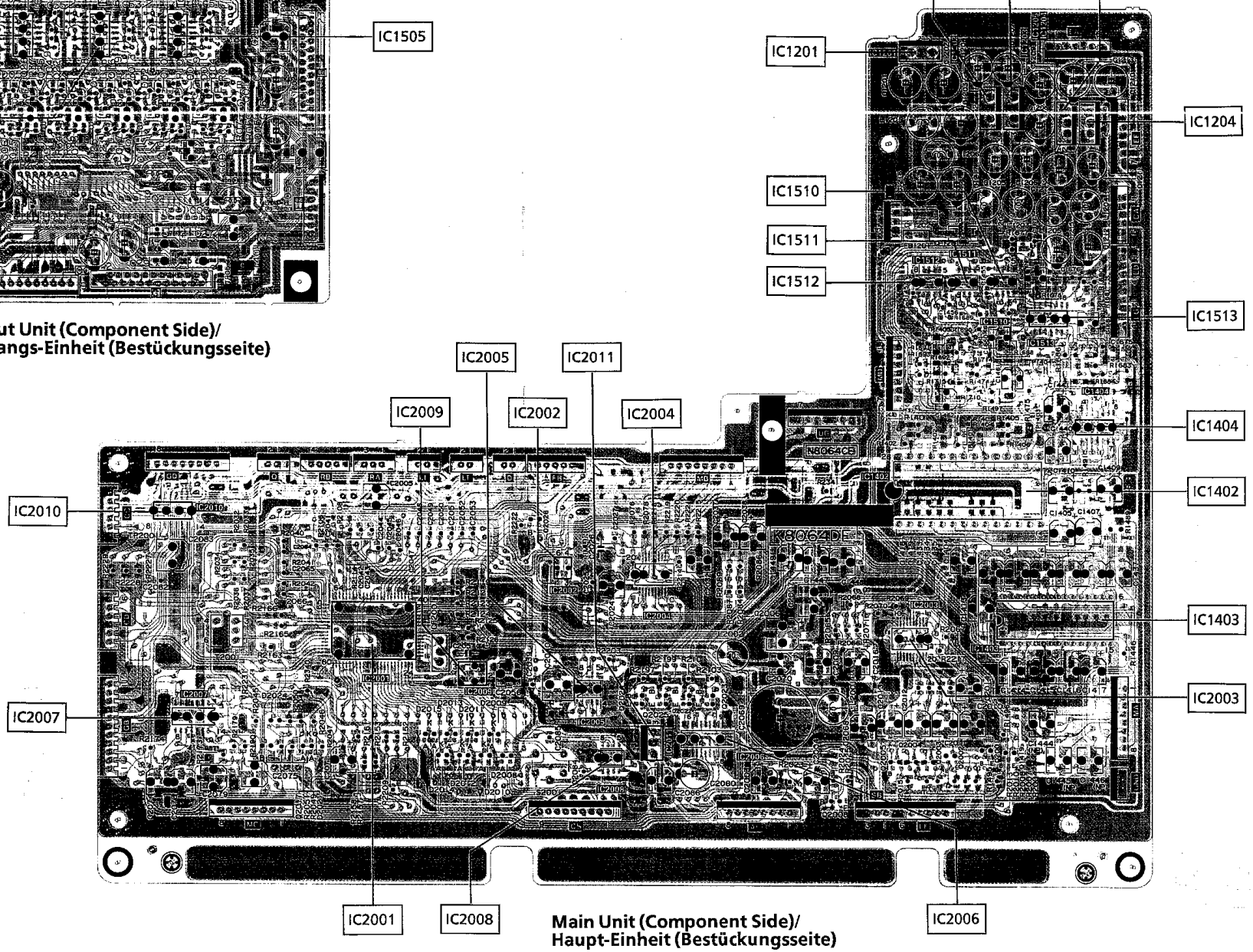
PC IF Unit (Component Side)/ PC-IF-Einheit (Bestückungsseite)



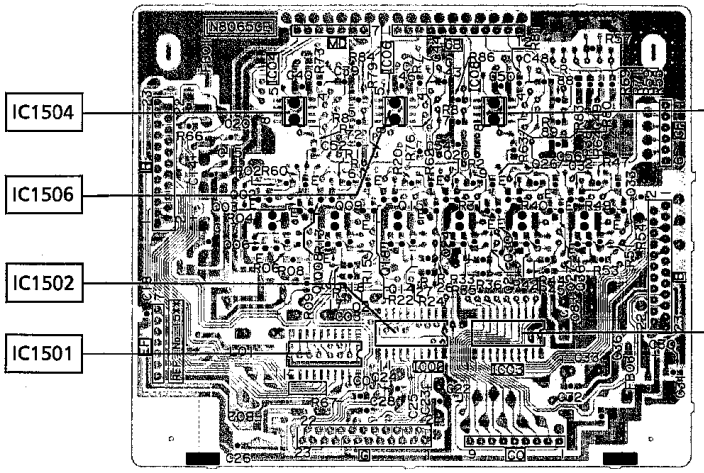
PC IF Unit (Wiring Side)/ PC-IF-Einheit (Leiterbahnseite)



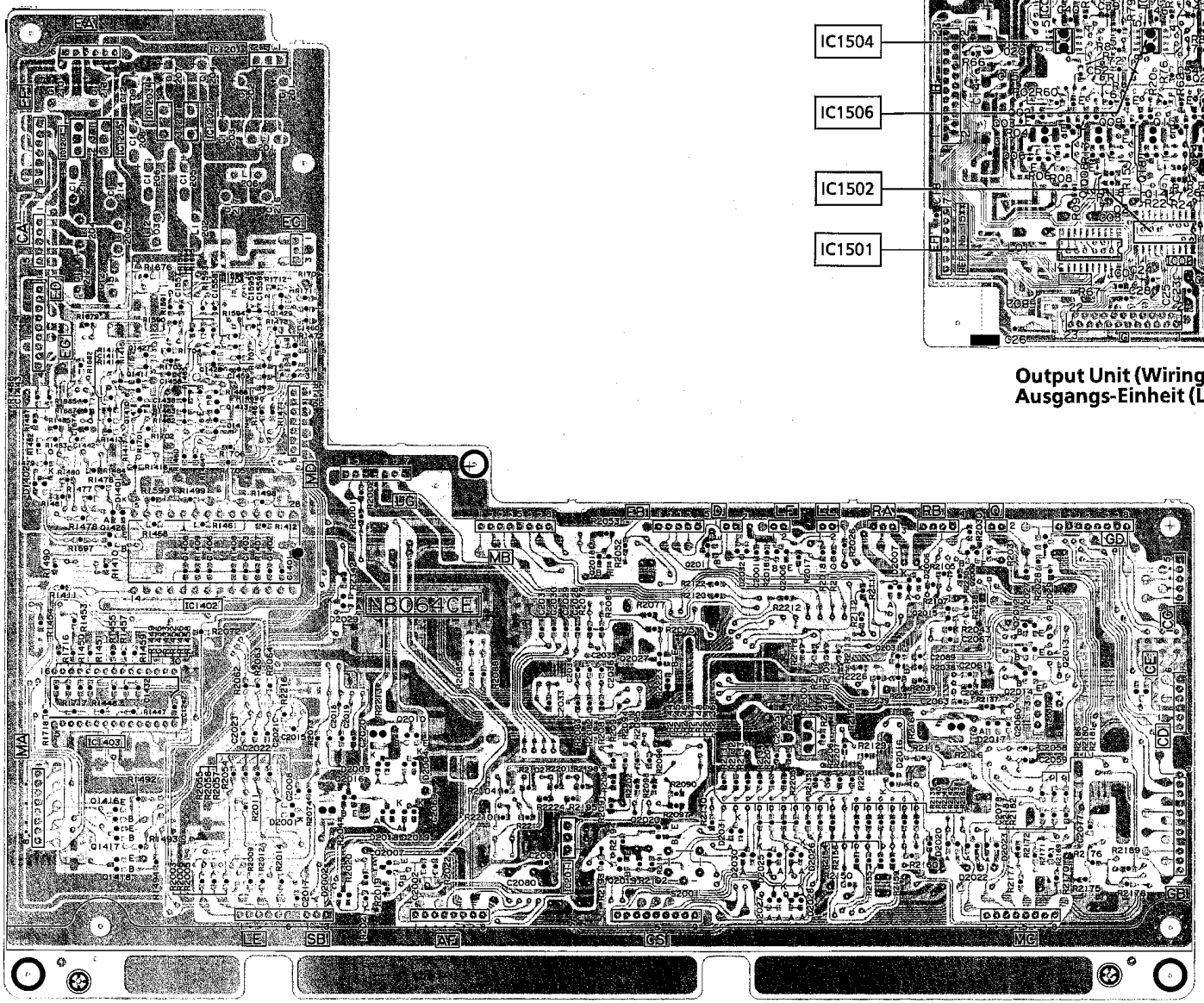
Output Unit (Component Side)/
Ausgangs-Einheit (Bestückungsseite)



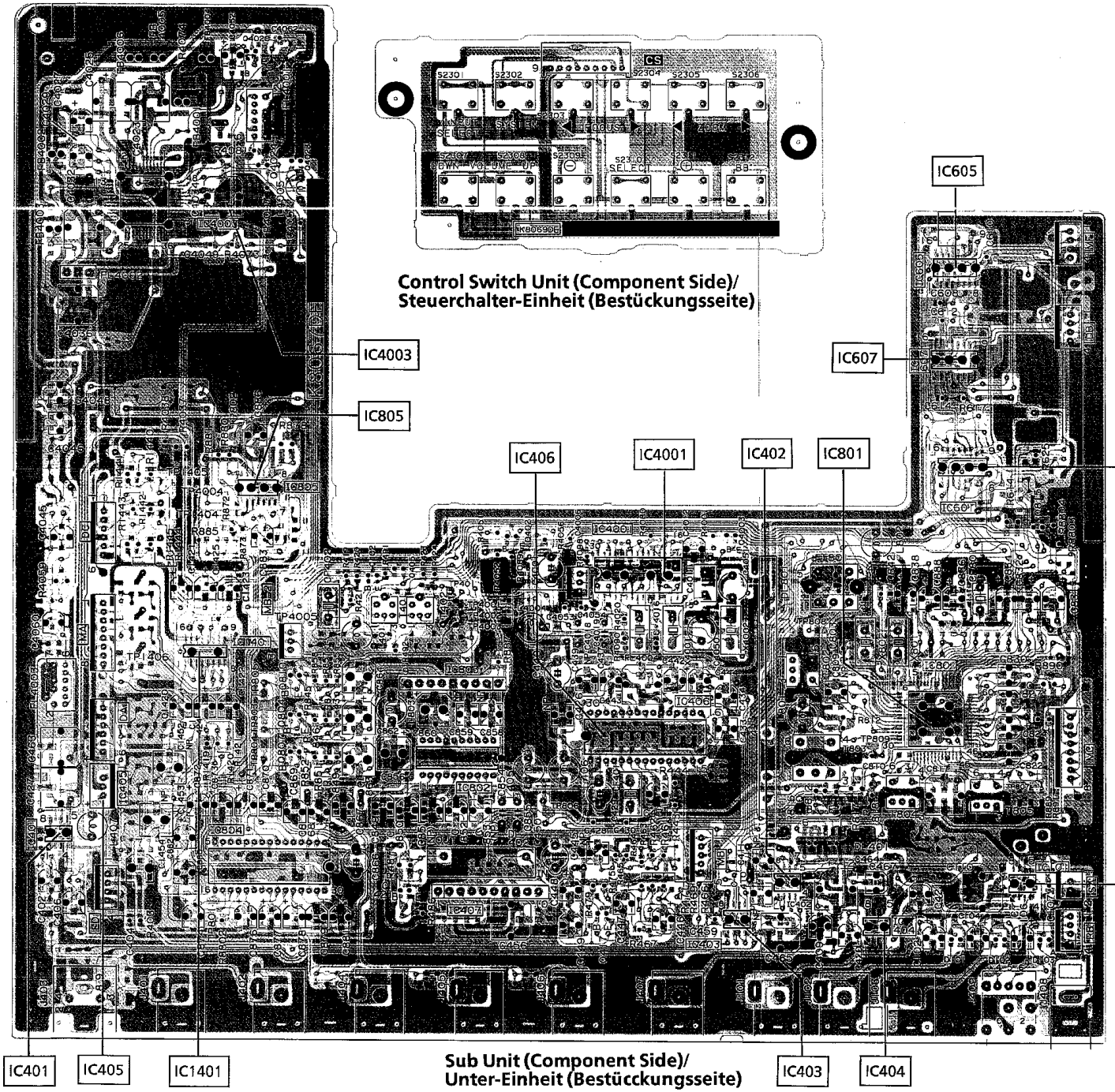
Main Unit (Component Side)/
Haupt-Einheit (Bestückungsseite)



Output Unit (Wiring Side)/
Ausgangs-Einheit (Leiterbahnseite)

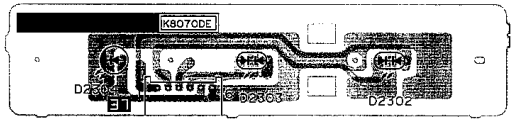


Main Unit (WiringSide)/
Haupt-Einheit (Leiterbahnseite)

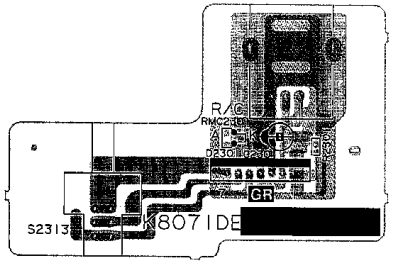


Sub Unit (Component Side)/
Unter-Einheit (Bestücckungsseite)

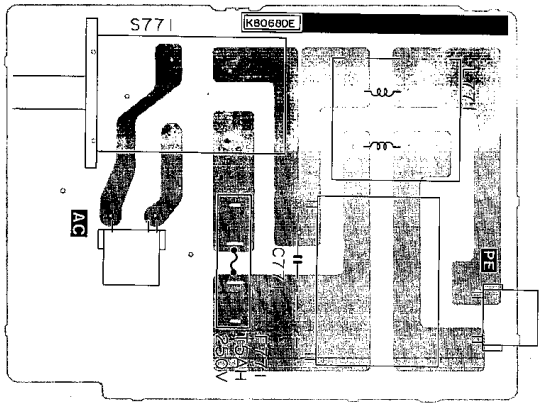
Control Switch Unit (Component Side)/
Steuerchalter-Einheit (Bestückungsseite)



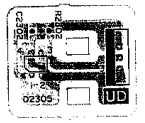
LED Unit (Component Side)/
LED-Einheit (Bestückungsseite)



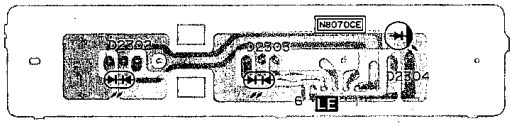
Main Switch Unit (Component Side)/
Hauptschalter-Einheit (Bestückungsseite)



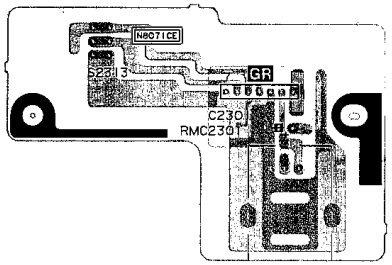
AC Input Unit (Component Side)/
Netzeingangs-Einheit (Bestückungsseite)



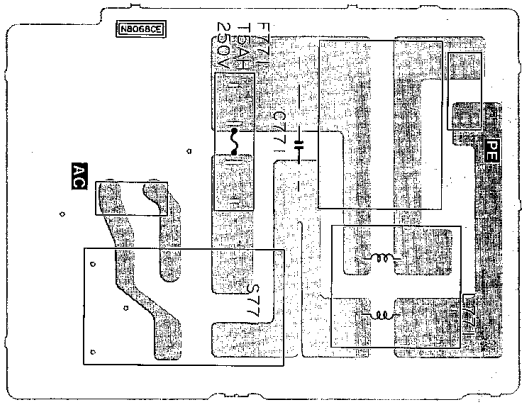
Inverse Unit (Component Side)/
Inversions-Einheit (Bestückungsseite)



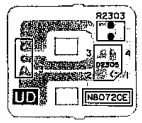
LED Unit (Wiring Side)/
LED-Einheit (Leiterbahnseite)



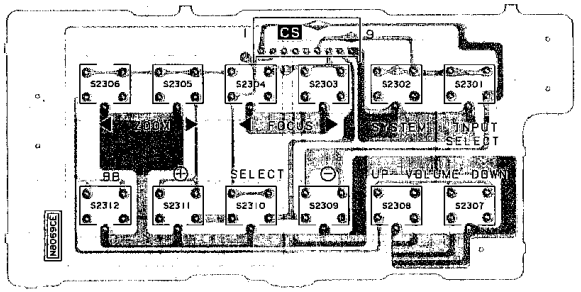
Main Switch Unit (Wiring Side)/
Hauptschalter-Einheit (Leiterbahnseite)



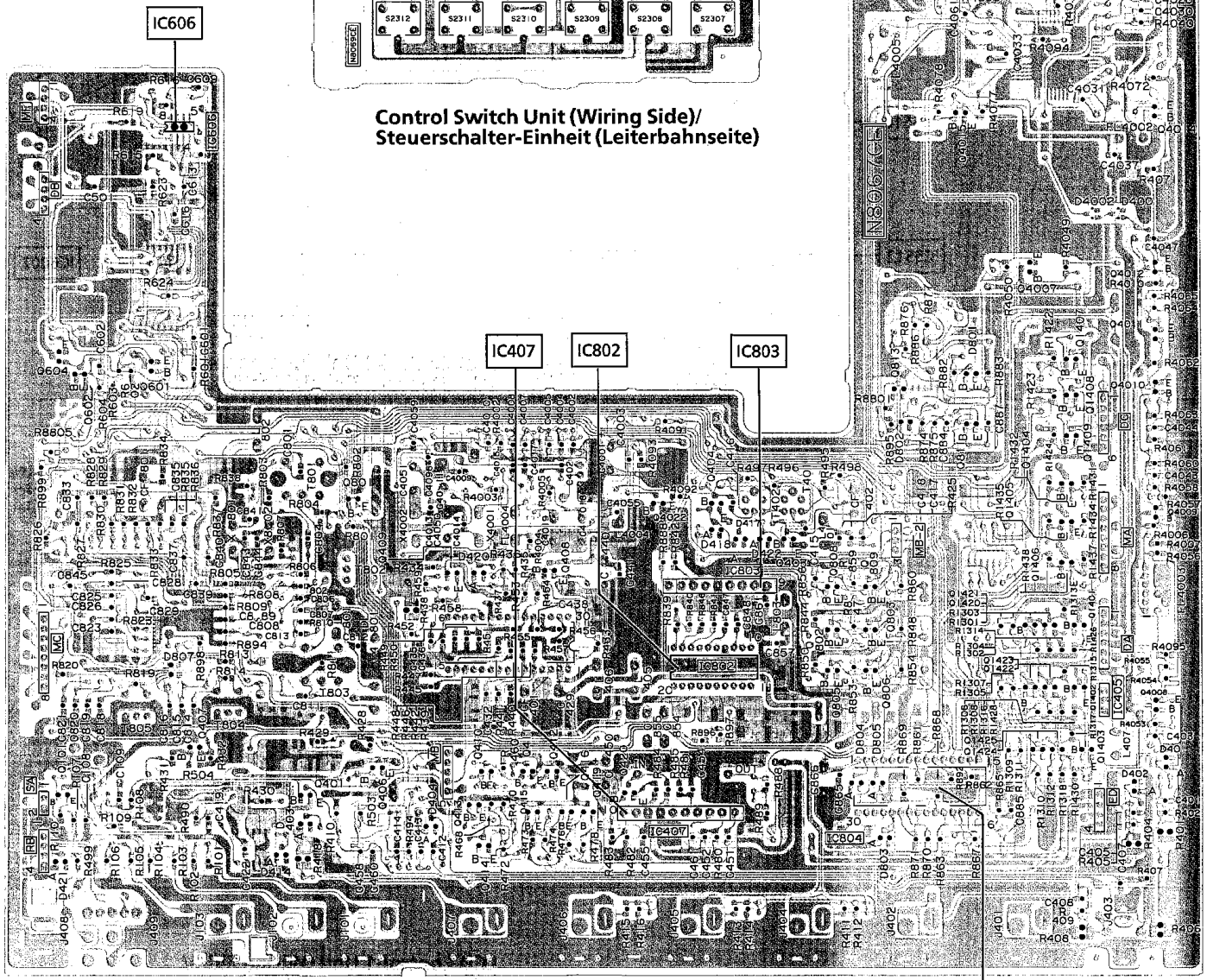
AC Input Unit (Wiring Side)/
Netzeingangs-Einheit (Leiterbahnseite)



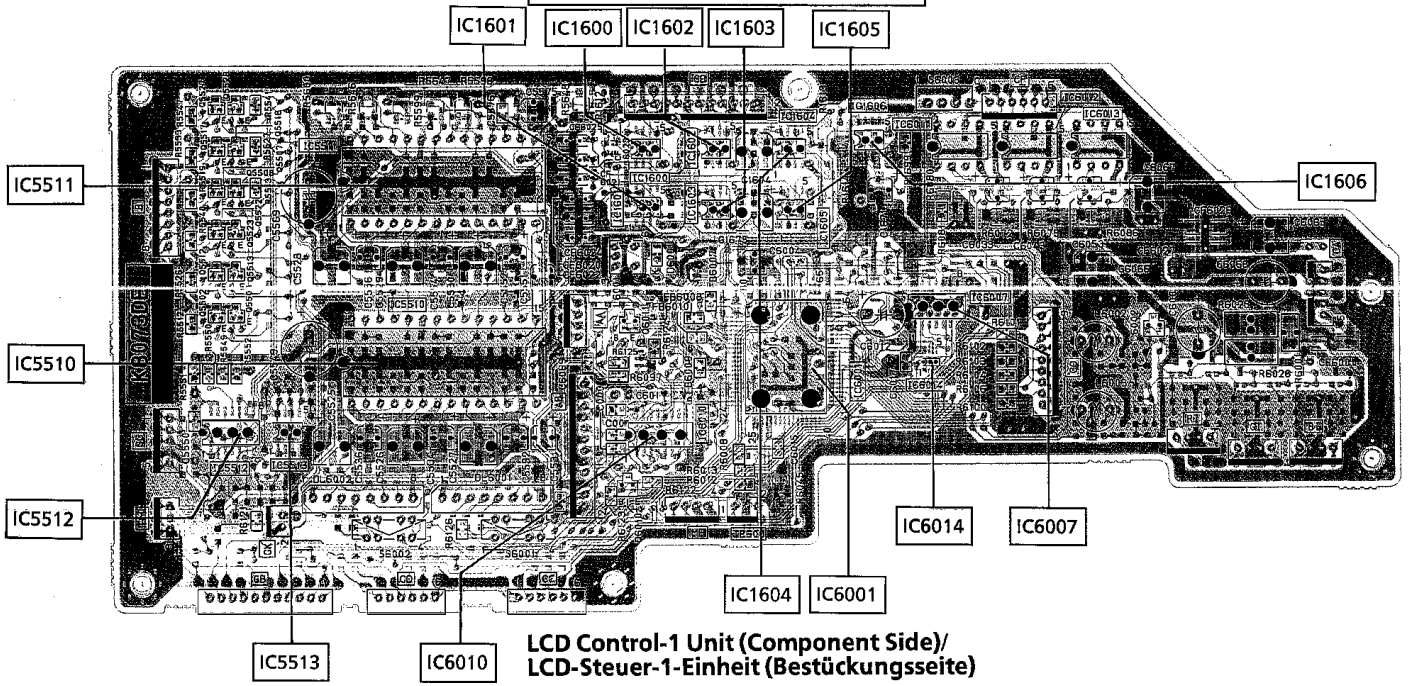
Inverse Unit (Wiring Side)/
Inversions-Einheit (Leiterbahnseite)



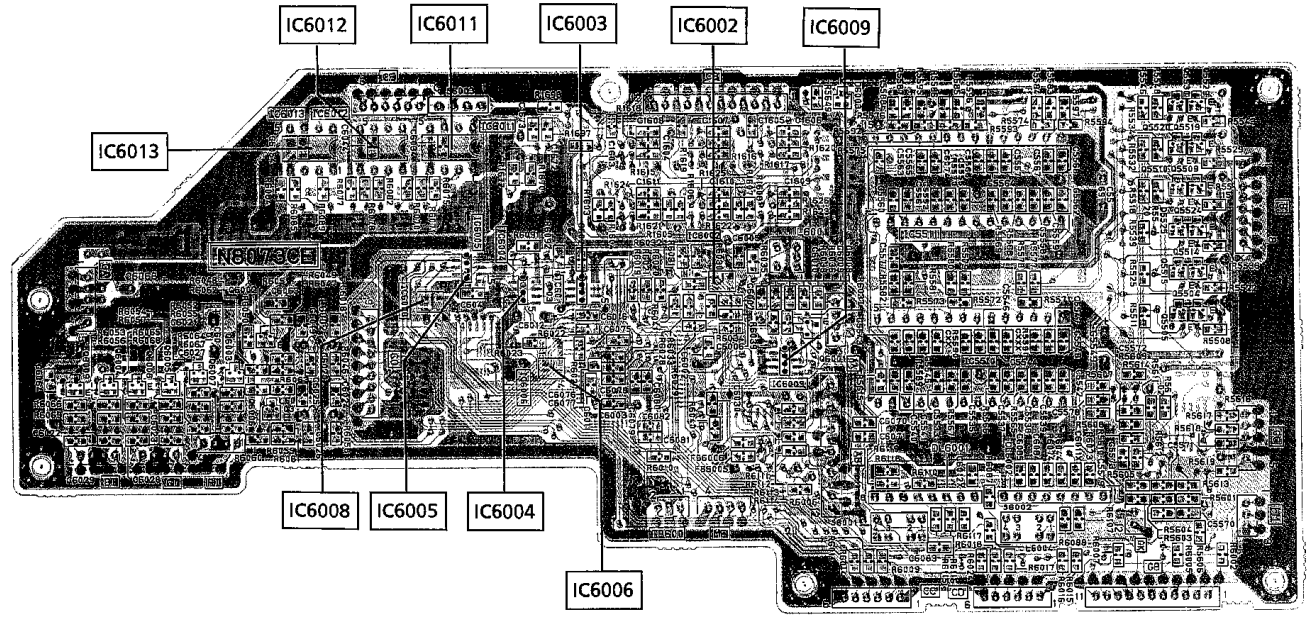
Control Switch Unit (Wiring Side)/
Steuerschalter-Einheit (Leiterbahnseite)



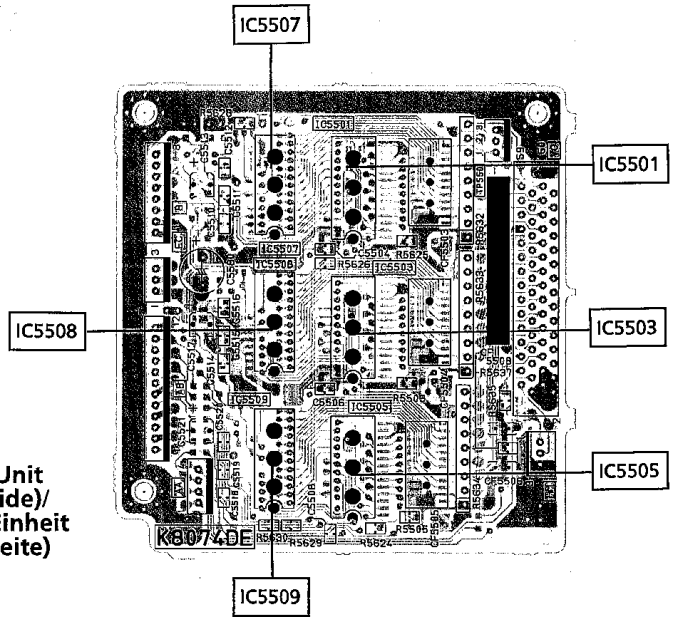
Sub Unit (Wiring Side)/Unter-Einheit (Leiterbahnseite)



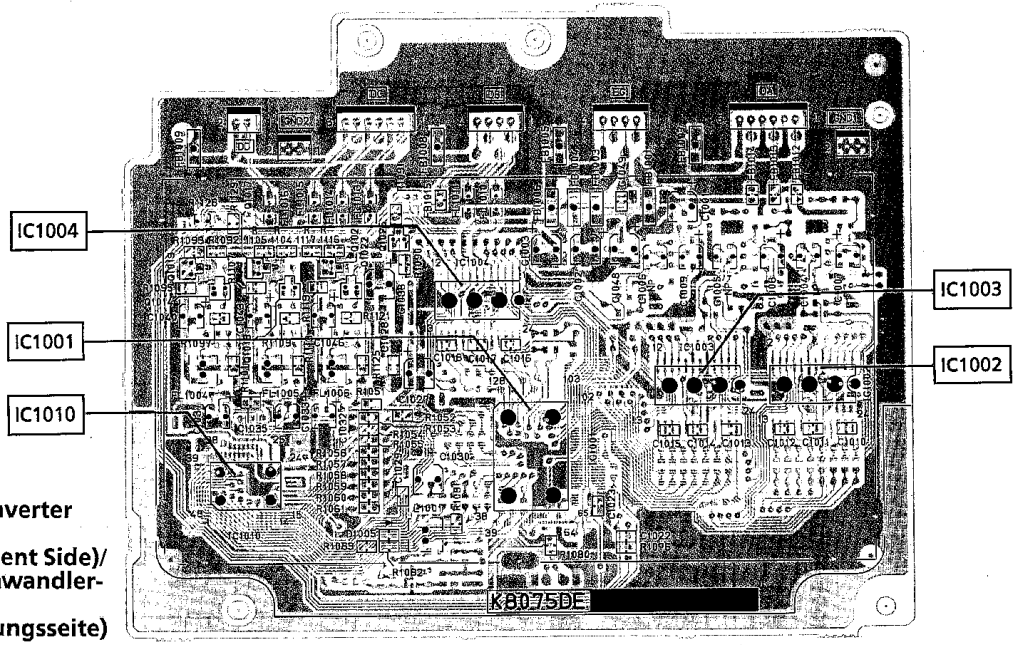
LCD Control-1 Unit (Component Side)/
LCD-Steuer-1-Einheit (Bestückungsseite)



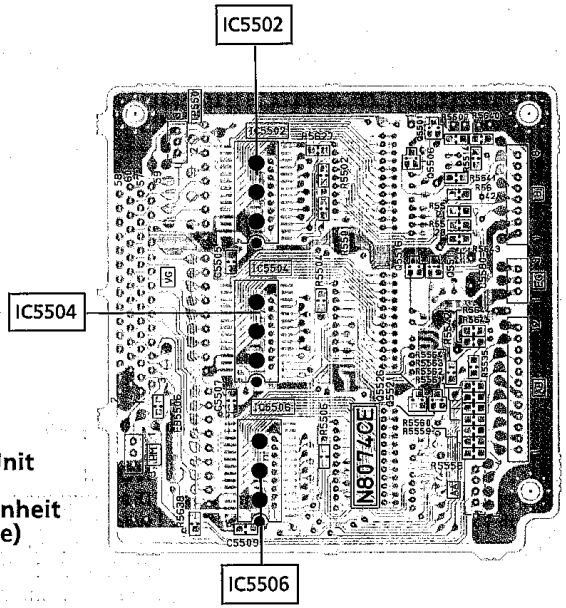
LCD Control-1 Unit (Wiring Side)/
LCD-Steuer-1-Einheit (Leiterbahnseite)



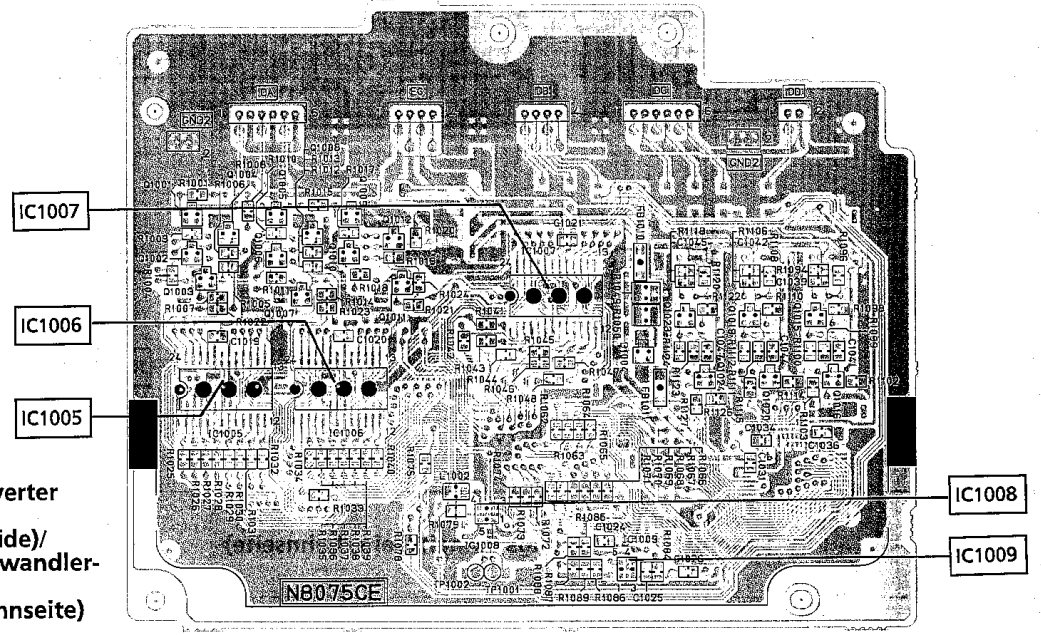
LCD Control-2 Unit
(Component Side)/
LCD-Steuer-2-Einheit
(Bestückungsseite)



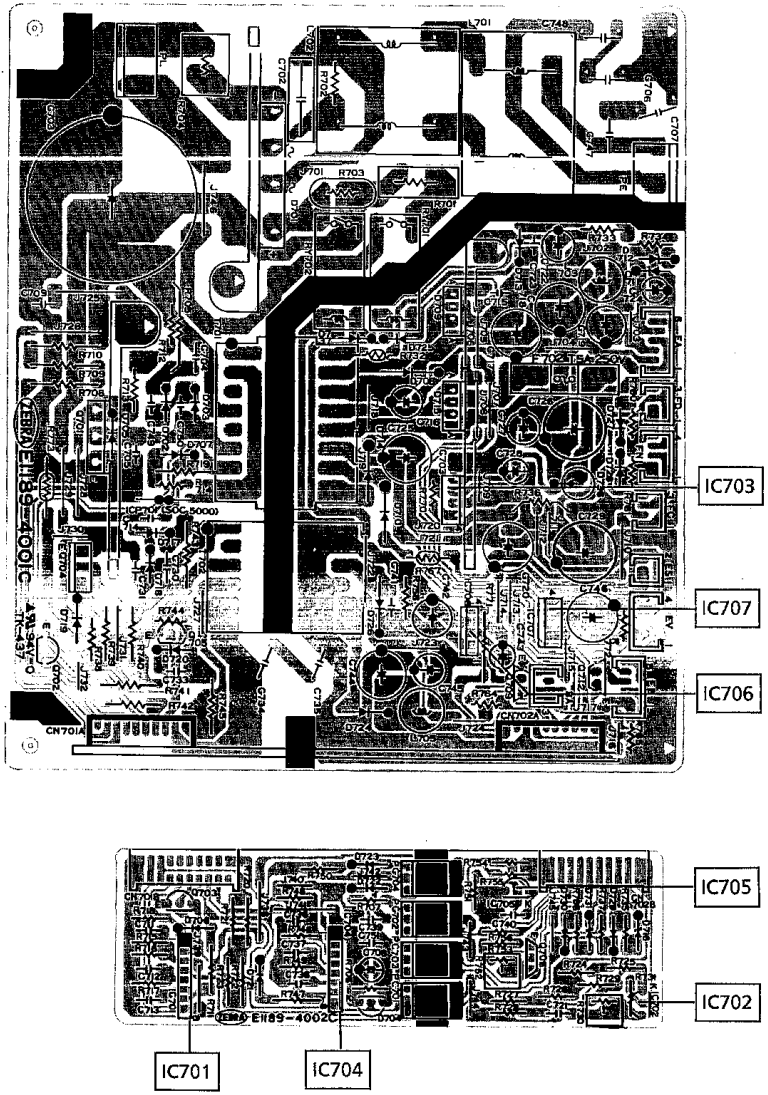
SCAN Converter
Unit
(Component Side)/
Abtastumwandler-
Einheit
(Bestückungsseite)



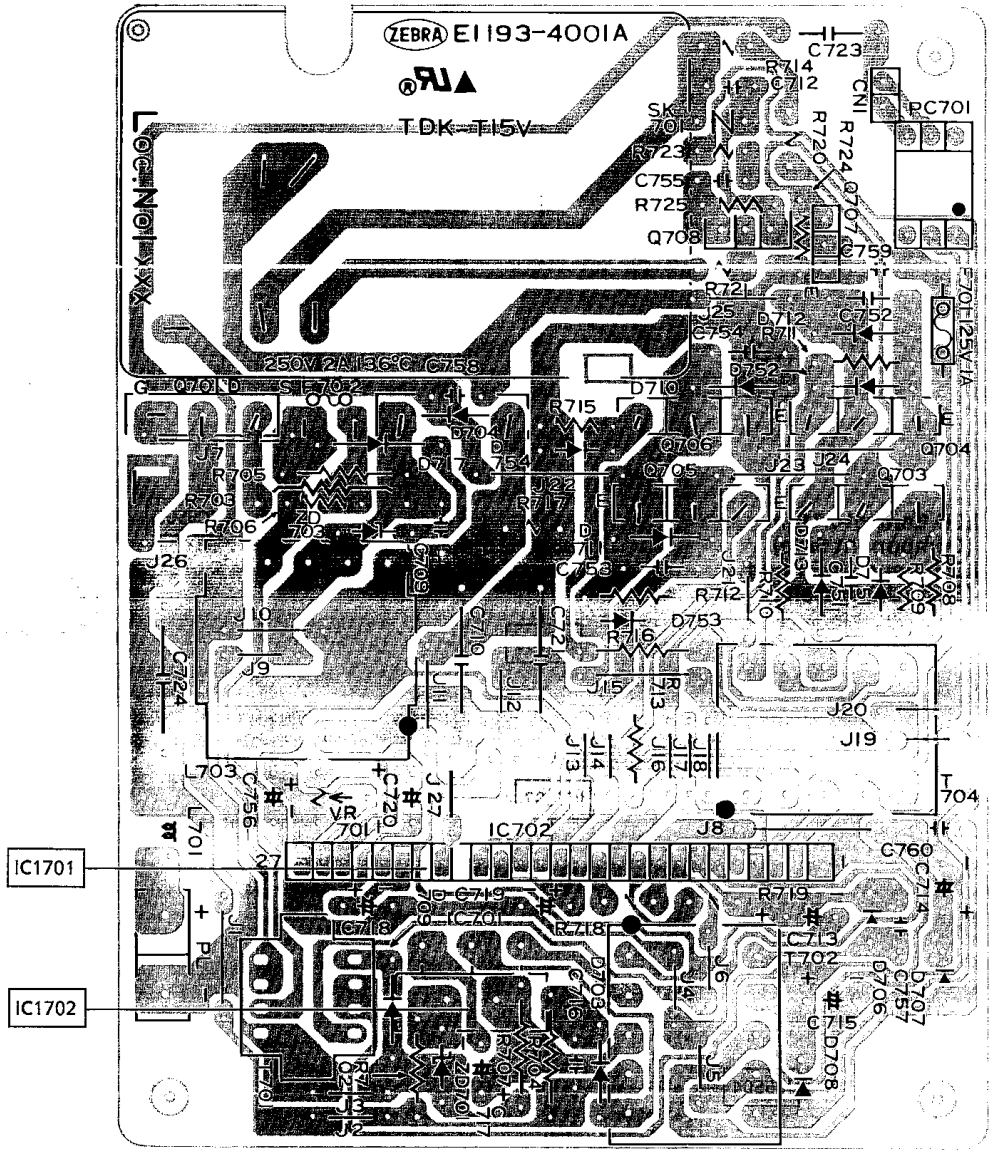
LCD Control-2 Unit
(Wiring Side)/
LCD-Steuer-2-Einheit
(Leiterbahnseite)



Scan Converter
Unit
(Wiring Side)/
Abtastumwandler-
Einheit
(Leiterbahnseite)



Power Unit (Wiring Side)/
Spannungsversorgungs-Einheit (Leiterbahnseite)

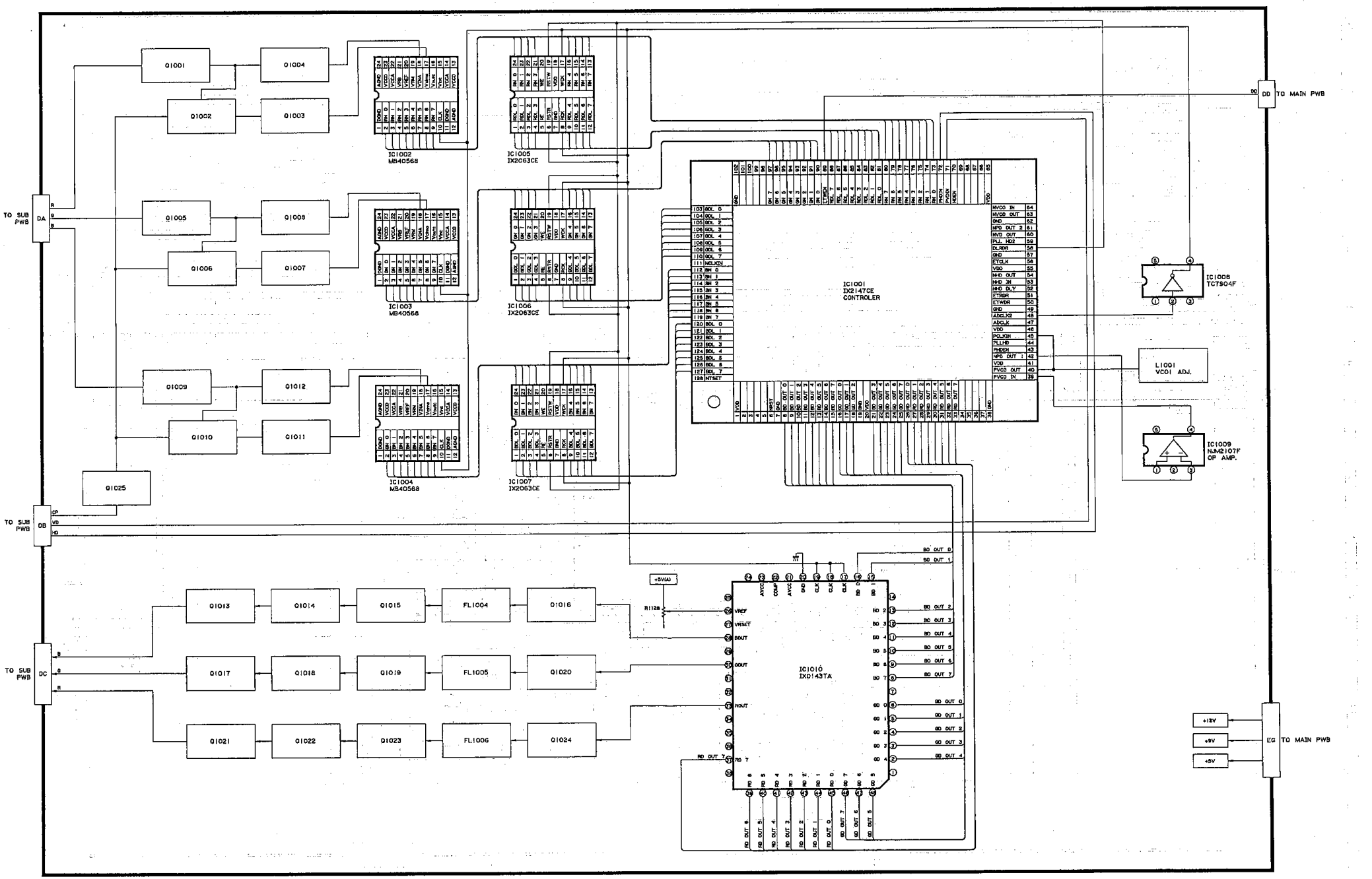


Ballast Unit (Wiring Side)/
Vorschaltgerät-Einheit (Leiterbahnseite)

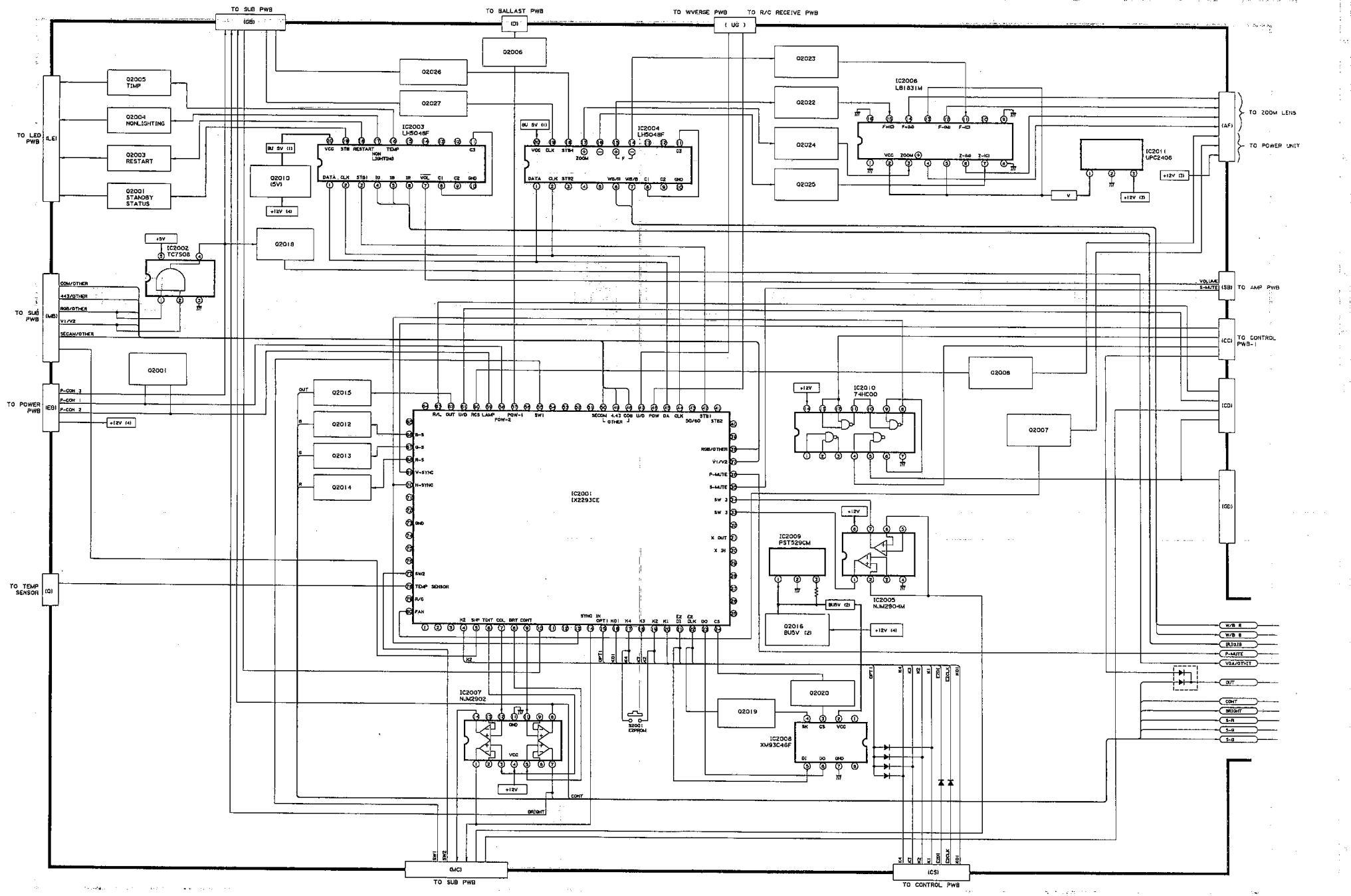
NOTE:
The reference number of the ballst unit is of 4 digits of 1 × × ×. The numbering on the PWB is given in 3 digits of 7 × ×.

NOTE:
Die Bezugsnummern für die Ballasteinheit werden in 4stelligen Nummern angegeben, welche alle mit einer 1beginnen. Die Platinen sind mit 3stelligen Nummern verhen, die mit 7 beginnen .

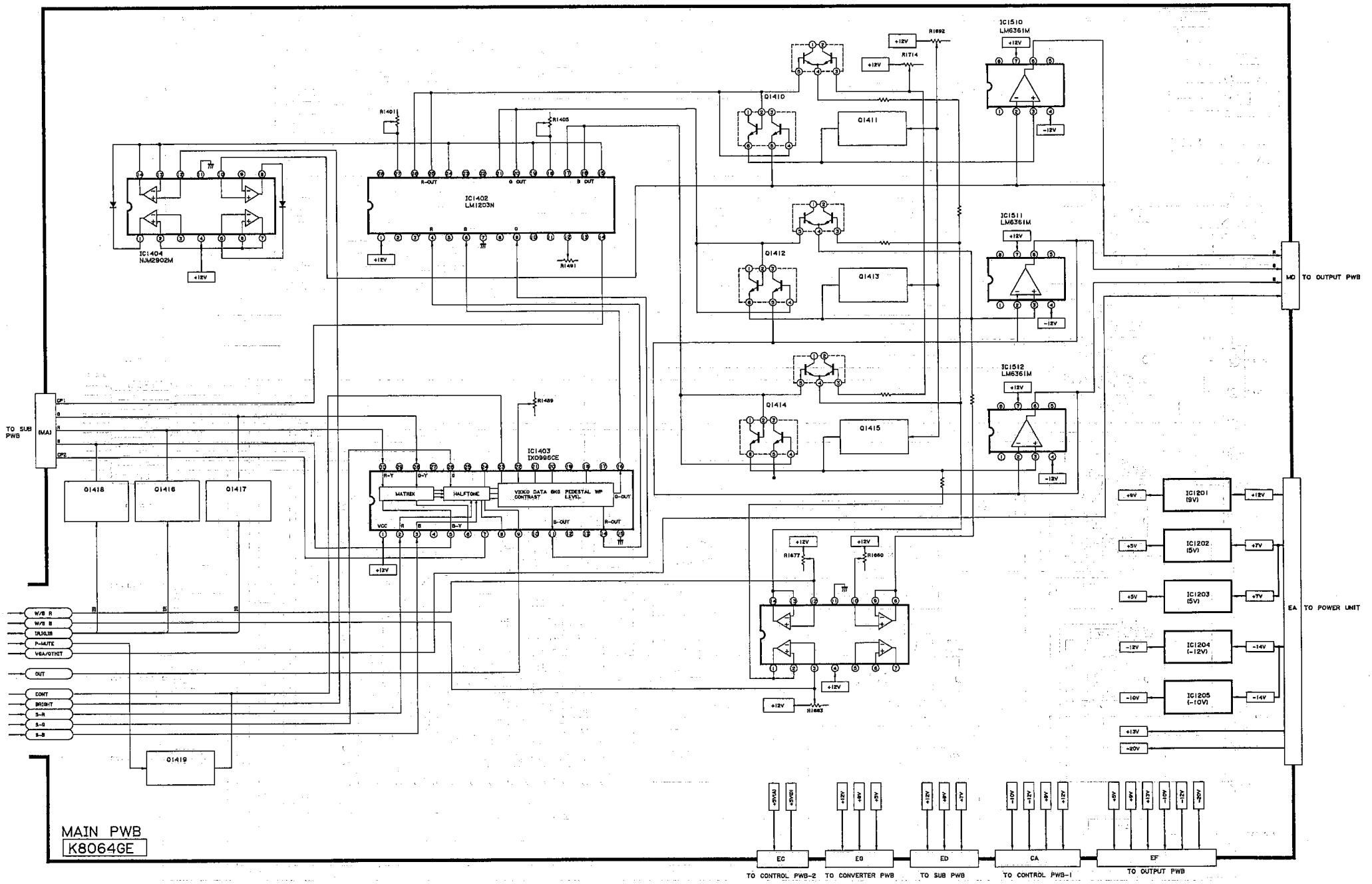
BLOCK DIAGRAM : CONVERTER UNIT / BLOCKSCHALTPLAN : KONVERTER-EINHEIT



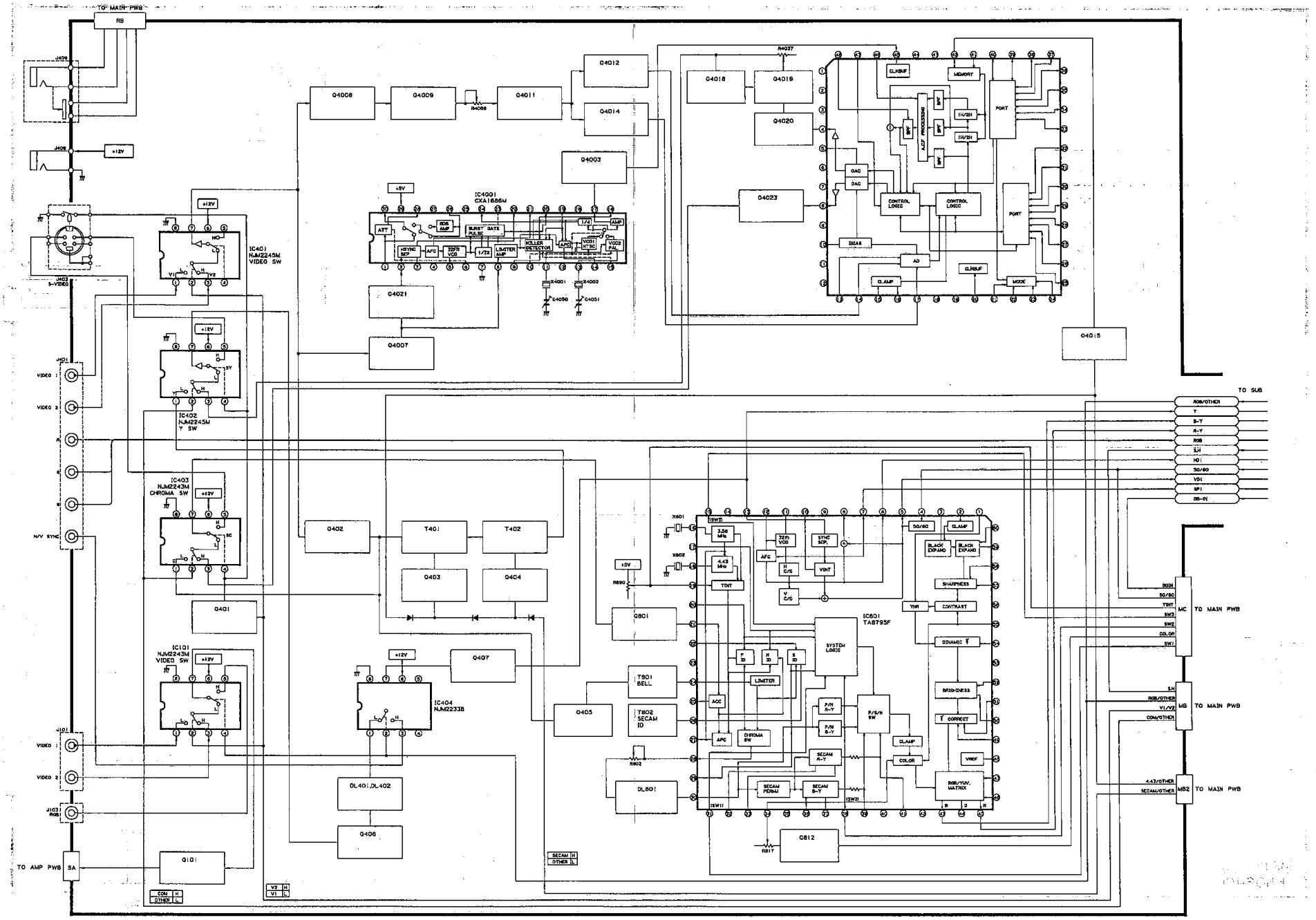
BLOCK DIAGRAM : MAIN UNIT-1 / BLOCKSCHALTPLAN : HAUPT-EINHEIT-1



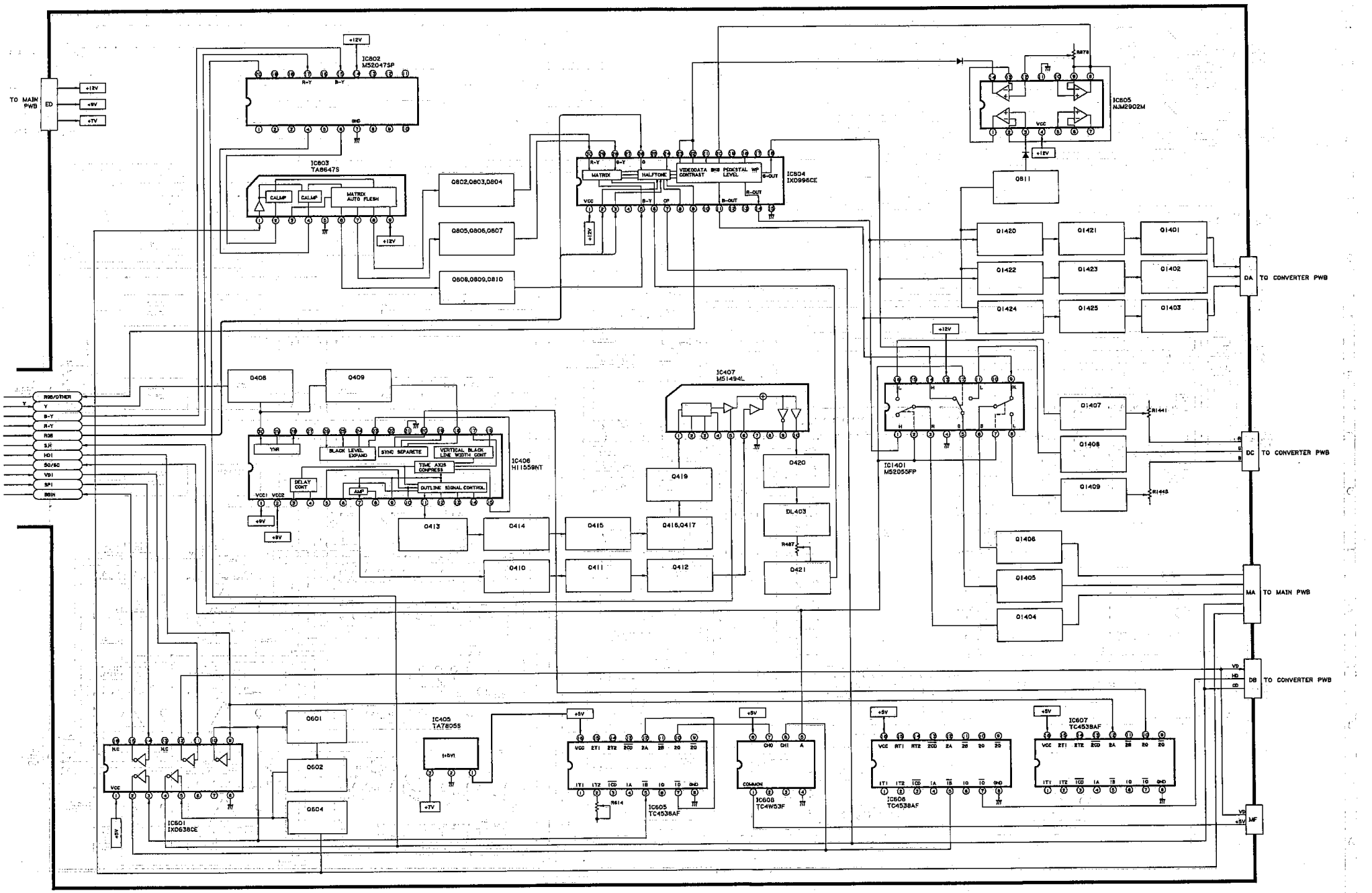
BLOCK DIAGRAM : MAIN UNIT-2 / BLOCKSCHALTPLAN : HAUPT-EINHEIT-2



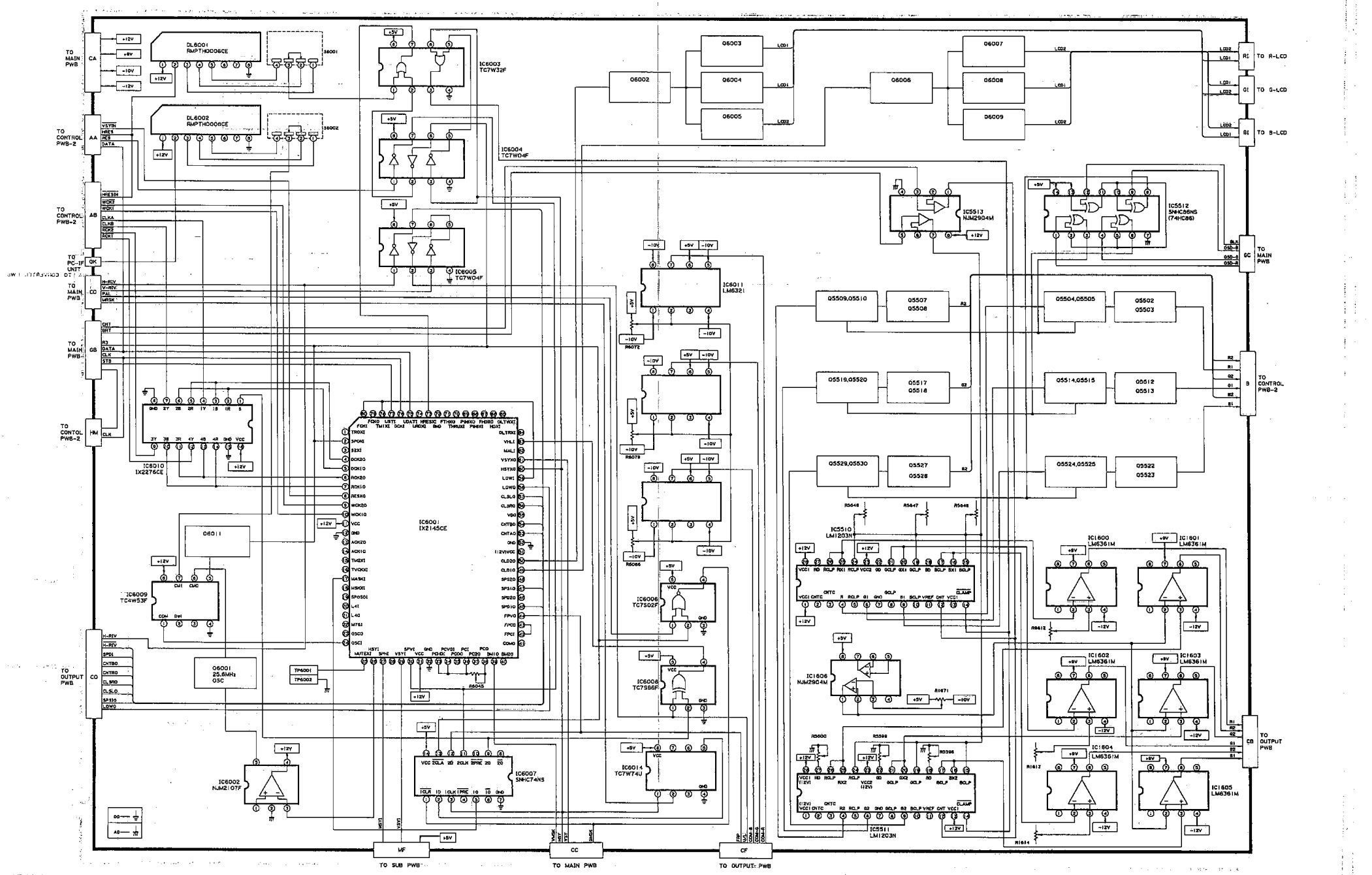
BLOCK DIAGRAM : SUB UNIT-1 / BLOCKSCHALTPLAN : UNTER-EINHEIT-1



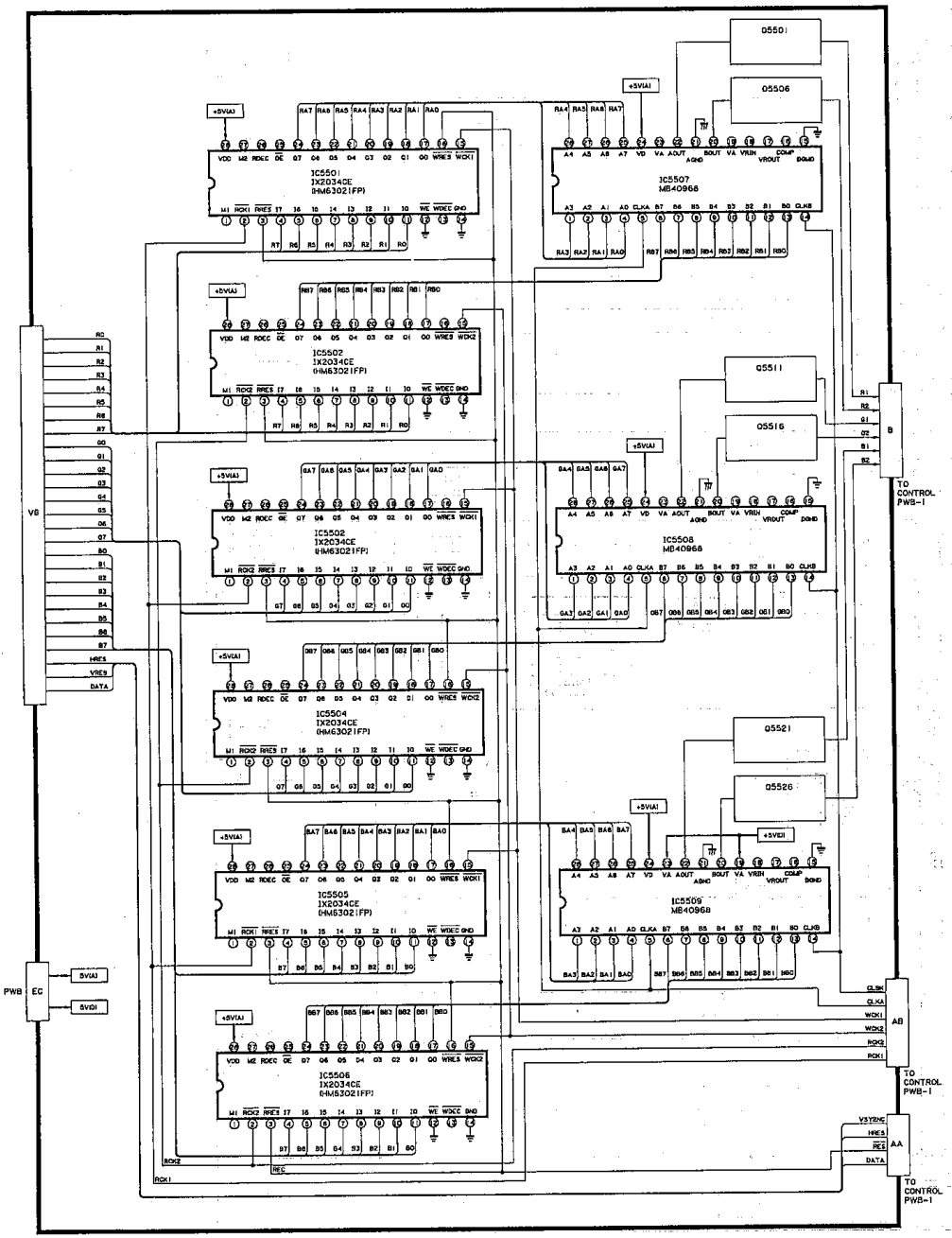
BLOCK DIAGRAM : SUB UNIT-2 / BLOCKSCHALTPLAN : UNTER-EINHEIT-2



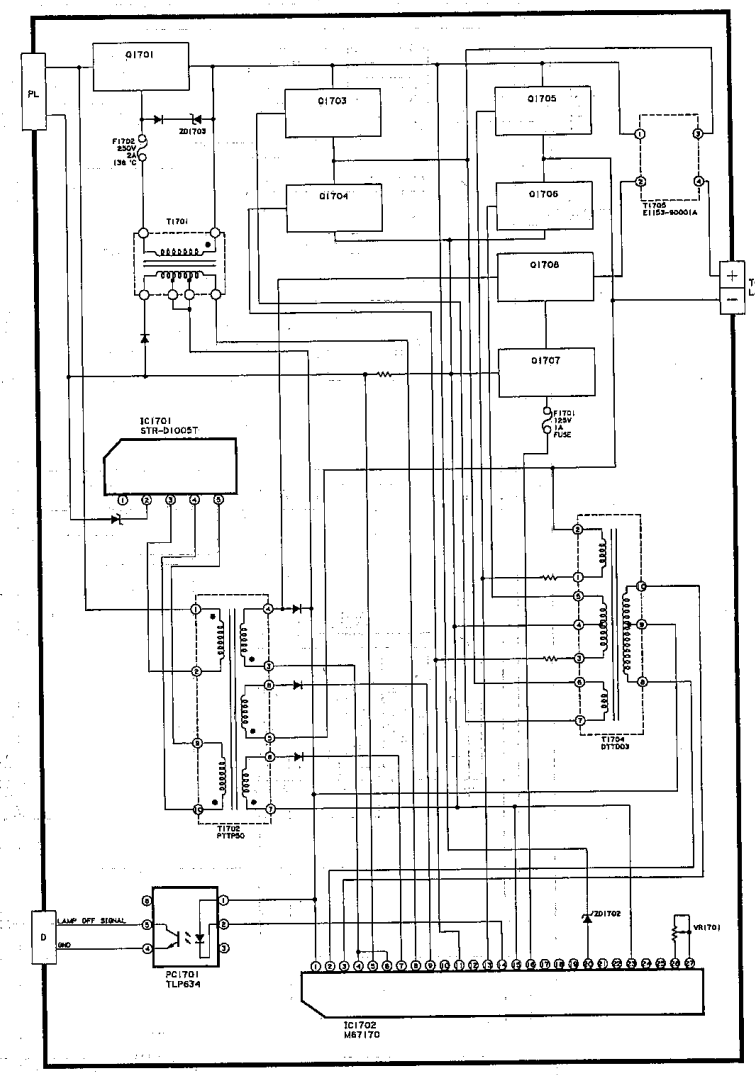
BLOCK DIAGRAM : CONTROL-1 UNIT / BLOCKSCHALTPLAN : STEUWERK-1-EINHEIT



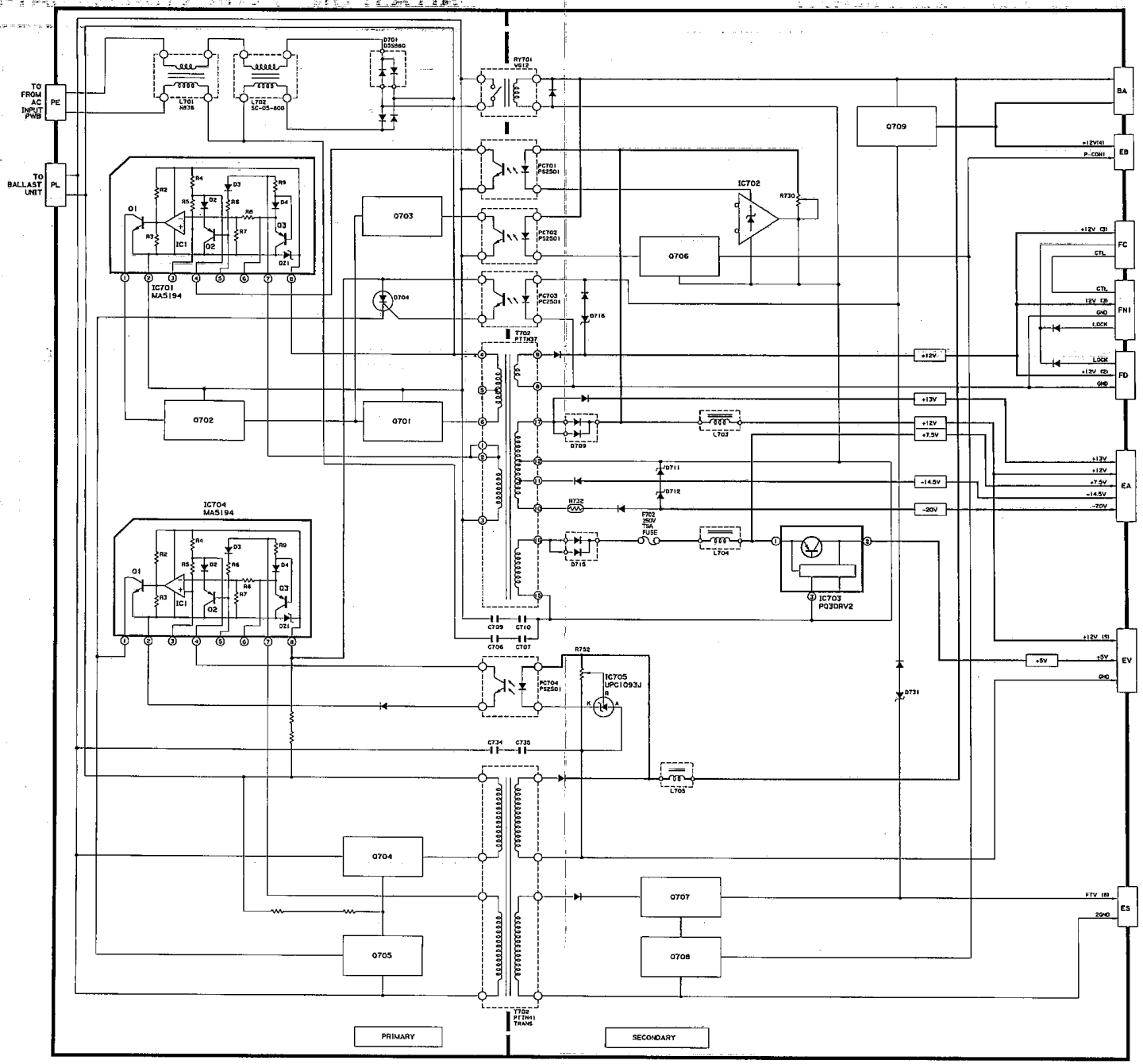
BLOCK DIAGRAM : CONTROL-2 UNIT /
BLOCKSCHALTPLAN : STEUWERK-2-EINHEIT



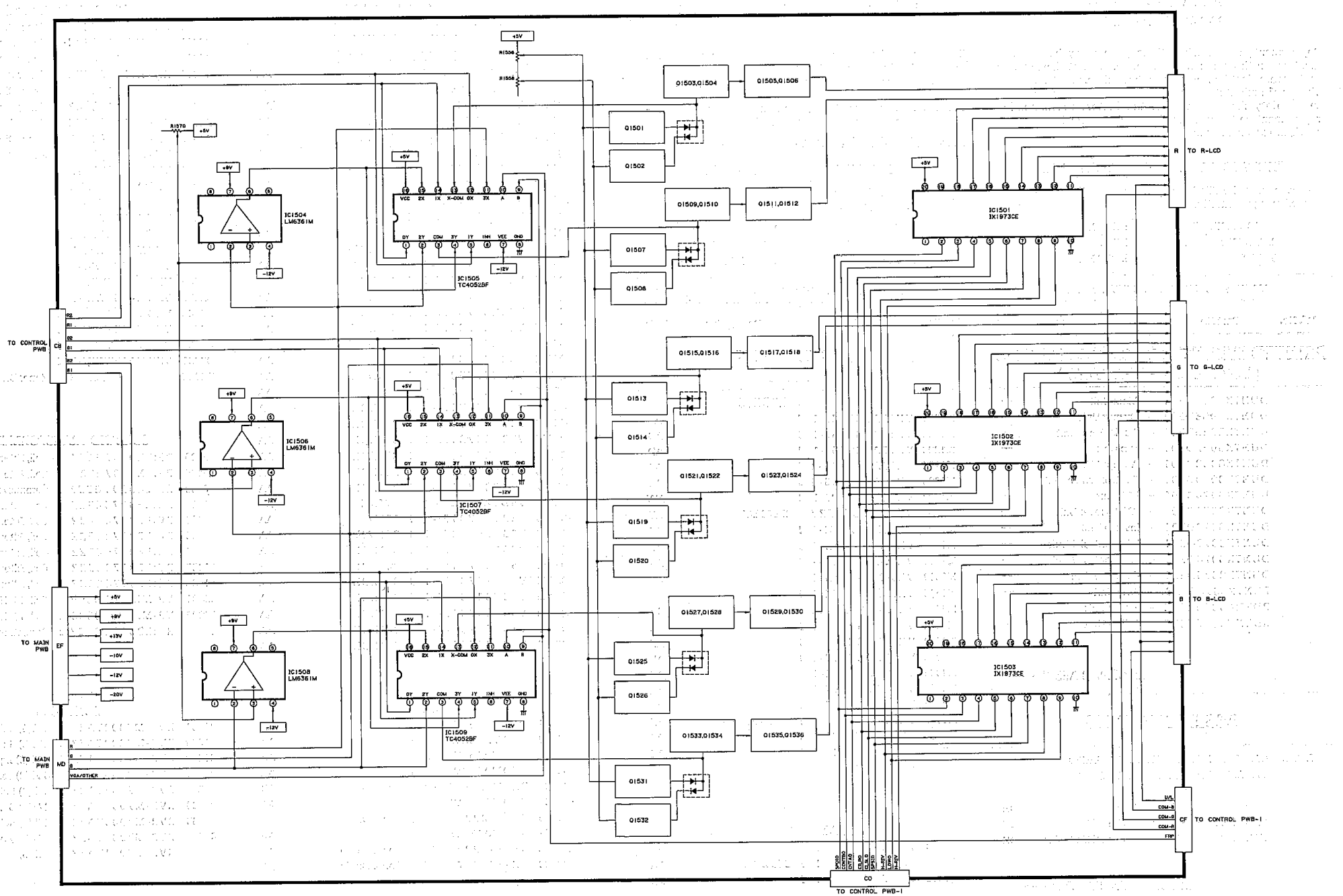
BALLAST UNIT / VORSCHALTGERÄT-EINHEIT



BLOCK DIAGRAM : POWER UNIT / BLOCKSCHALTPLAN : NETZ-EINHEIT



BLOCK DIAGRAM : OUTPUT UNIT / BLOCKSCHALTPLAN : AUSGANGS-EINHEIT



PARTS LIST

PARTS REPLACEMENT

Replacement parts which have these special safety characteristics identified in this manual: electrical components having such features are identified by "⚠" in the Replacement Parts Lists. The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION
5. CODE
6. QUANTITY

MARK ★: SPARE PARTS-DELIVERY SECTION

ERSATZTEILLISTE

AUSTAUSCH VON TEILEN

Ersatzteile, die besondere Sicherheitseigenschften haben, sind in dieser Anleitung markiert. Elektrische Komponenten mit solchen Eigenshaften sind in den Ersatzteil durch "⚠" gekennzeichnet.
Der Gebrauch von Ersatzteilen, die nicht deselben Sicherheitseigenschaften haben wie die vom Hersteller empfohlenen ud in der Bedienungsanleitung angegebenen, können zur Ursache von Blitzeinschlägen, Bränden und anderen Gefahren werden.

"WIE MAN ERSATSTEILE BESTELLT"

Damit Ihre Bestellung promt und korrekt ausgeführt wird, geben Sie bitte folgende Informationen.

1. MODELL NR.
2. REF. NR.
3. ERSATZTEIL NR.
4. BESCHREIBUNG
5. KODE
6. QUANTITÄT

MARKIERUNG ★: ERSATZTEILE-LIEFERUNG

Ref. No.	Part No.	★	Description	Code

PRINTED WIRING BOARD ASSEMBLIES
(*NOT REPLACEMENT ITEM*)

DUNTK8064DE01	–	Main Unit	—
DUNTK8065DE01	–	Output Unit	—
DUNTK8066DE01	–	Audio Amp. Unit	—
DUNTK8067DE01	–	Sub Unit	—
DUNTK8068DE01	–	AC Input Unit	—
DUNTK8069DE01	–	Control Switch Unit	—
DUNTK8070DE01	–	LED Unit	—
DUNTK8071DE01	–	R/C Reciever Unit	—
DUNTK8072DE01	–	Inverse Unit	—
DUNTK8073DE01	–	LCD Control-1 Unit	—
DUNTK8074DE01	–	LCD Control-2 Unit	—
DUNTK8075DE01	–	Converter Unit	—
RUNTK0374CEN3	–	PC IF Unit	—
RDENC0085CEZZ	–	Power Unit	—
RDENC0086CEZZ	–	Ballast Unit	—

—— End of PWB ASS'Y ——

ASSEMBLY UNITS

NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.

RUNTK0367CEZZ	J	LCD Panel Unit, Red	DH
RUNTK0367CEZZ	J	LCD Panel Unit, Green	DH
RUNTK0368CEZZ	J	LCD Panel Unit, Blue	DH

—— End of ASSEMBLY UNITS ——

Ref. No.	Part No.	★	Description	Code

DUNTK8064DE01
MAIN UNIT

INTEGRATED CIRCUITS

IC1201	VHiTA7809S/-1	J		AE
IC1202	VHiTA7805S/-1	J		AD
IC1203	VHiTA7805S/-1	J		AD
IC1204	VHiTA79012S-1	J		AE
IC1205	VHiTA79010S-1	J		AE
IC1402	VHiLM1203N/-1	J		AW
IC1403	RH-iX0996CEZZ	J	IR3P32A1	AT
IC1404	VHiNJM2902M-1	J		AF
IC1510	VHiLM6361M/-1	J		AR
IC1511	VHiLM6361M/-1	J		AR
IC1512	VHiLM6361M/-1	J		AR
IC1513	VHiNJM2902M-1	J		AF
IC2001	RH-iX2293CEZZ	J		BA
IC2002	VHiTC7S08F/-1	J		AC
IC2003	VHiLH5048F/-1	J		AK
IC2004	VHiLH5048F/-1	J		AK
IC2005	VHiNJM2904M-1	J		AE
IC2006	VHiLB1831M/-1	J		AN
IC2007	VHiNJM2902M-1	J		AF
IC2008	VHiXM93C46F-1	J	XRM93C46AF	AH
IC2009	VHiPST529CM-1	J		AE
IC2010	VHiSNHC00NS-1	J		AC
IC2011	VHiUPC2406H-1	J		AH

TRANSISTORS

Q1410	VSiMX2/////-1	J		AB
Q1411	VSBC847B1F/-1	J	BC847B1F	AA
Q1412	VSiMX2/////-1	J		AB

DUNTK8064DE01
MAIN UNIT (Continued)

TRANSISTORS (Continued)

Q1413	VSBC847B1F/-1	J	BC847B1F	AA
Q1414	VSiMX2/////-1	J		AB
Q1415	VSBC847B1F/-1	J	BC847B1F	AA
Q1416	VSBC847B1F/-1	J	BC847B1F	AA
Q1417	VSBC847B1F/-1	J	BC847B1F	AA
Q1418	VSBC847B1F/-1	J	BC847B1F	AA
Q1419	VSBC847B1F/-1	J	BC847B1F	AA
Q1426	VSDTC144EK/-1	J	DTC144EK	AB
Q1427	VSFMW1/////-1	J		AB
Q1428	VSFMW1/////-1	J		AB
Q1429	VSFMW1/////-1	J		AB
Q2001	VSBC847B1F/-1	J	BC847B1F	AA
Q2002	VSBC857B3F/-1	J	BC857B3F	AA
Q2003	VSBC847B1F/-1	J	BC847B1F	AA
Q2004	VSBC847B1F/-1	J	BC847B1F	AA
Q2005	VSBC847B1F/-1	J	BC847B1F	AA
Q2006	VSBC847B1F/-1	J	BC847B1F	AA
Q2007	VSBC847B1F/-1	J	BC847B1F	AA
Q2008	VSBC847B1F/-1	J	BC847B1F	AA
Q2009	VSBC857B3F/-1	J	BC857B3F	AA
Q2010	VSBC847B1F/-1	J	BC847B1F	AA
Q2012	VSBC847B1F/-1	J	BC847B1F	AA
Q2013	VSBC847B1F/-1	J	BC847B1F	AA
Q2014	VSBC847B1F/-1	J	BC847B1F	AA
Q2015	VSBC847B1F/-1	J	BC847B1F	AA
Q2016	VSBC847B1F/-1	J	BC847B1F	AA
Q2017	VSBC847B1F/-1	J	BC847B1F	AA
Q2018	VSDTC144EK/-1	J	DTC144EK	AB
Q2019	VSBC847B1F/-1	J	BC847B1F	AA
Q2020	VSBC857B3F/-1	J	BC857B3F	AA
Q2022	VSBC847B1F/-1	J	BC847B1F	AA
Q2023	VSBC847B1F/-1	J	BC847B1F	AA
Q2024	VSBC847B1F/-1	J	BC847B1F	AA
Q2025	VSBC847B1F/-1	J	BC847B1F	AA
Q2026	VSBC847B1F/-1	J	BC847B1F	AA
Q2027	VSBC847B1F/-1	J	BC847B1F	AA
Q2031	VSBC847B1F/-1	J	BC847B1F	AA

DIODES

D1401	VHDMA152WK/-1	J		AA
D1402	VHDMA152WK/-1	J		AA
D2001	VHDMA152WK/-1	J		AA
D2002	VHDMA152WK/-1	J		AA
D2003	RH-EX0227CEZZ	J	Zener Diode	AB
D2004	VHDMA152WK/-1	J		AA
D2006	RH-EX0225CEZZ	J	Zener Diode	AB
D2007	VHDMA152WK/-1	J		AA
D2008	RH-EX0227CEZZ	J	Zener Diode	AB
D2009	RH-EX0227CEZZ	J	Zener Diode	AB

DIODES (Continued)

D2010	RH-EX0227CEZZ	J	Zener Diode	AB
D2011	RH-EX0227CEZZ	J	Zener Diode	AB
D2012	RH-EX0227CEZZ	J	Zener Diode	AB
D2013	RH-EX0227CEZZ	J	Zener Diode	AB
D2014	RH-EX0227CEZZ	J	Zener Diode	AB
D2015	RH-EX0227CEZZ	J	Zener Diode	AB
D2016	RH-EX0227CEZZ	J	Zener Diode	AB
D2017	RH-EX0227CEZZ	J	Zener Diode	AB
D2018	RH-EX0227CEZZ	J	Zener Diode	AB
D2019	VHDMA152WK/-1	J		AA
D2020	VHDMA153///-1	J		AB
D2021	VHDMA152WK/-1	J		AA
D2022	VHDMA153///-1	J		AB
D2023	VHDMA153///-1	J		AB
D2024	VHDMA152WK/-1	J		AA
D2025	VHDMA152WK/-1	J		AA
D2026	VHDMA152WK/-1	J		AA
D2027	VHDMA152WK/-1	J		AA
D2028	VHDMA152WK/-1	J		AA
D2029	VHDMA152WK/-1	J		AA
D2030	VHDMA152WK/-1	J		AA
D2031	VHDMA152WK/-1	J		AA
D2032	RH-EX0228CEZZ	J	Zener Diode	AB

COIL AND TRANSFORMERS

CF1201	RFiLN0097GEZZ	J	Coil, Filter	AF
CF1202	RFiLN0097GEZZ	J	Coil, Filter	AF
CF2001	RFiLC0091GEZZ	J	Ceramic Filter	AD
L1201	RCiLF0174CEZZ	J	Coil, Filter	AC
L1202	RCiLF0174CEZZ	J	Coil, Filter	AC
L1203	RCiLF0174CEZZ	J	Coil, Filter	AC
L1204	RCiLF0174CEZZ	J	Coil, Filter	AC
L1205	RCiLF0174CEZZ	J	Coil, Filter	AC
L1206	RCiLF0174CEZZ	J	Coil, Filter	AC
L2001	VP-MK100K0000	J	Coil, 10μH	AB
L2002	VP-MK100K0000	J	Coil, 10μH	AB
T2001	RCiLB0024CEZZ	J	Oscillation Coil	AD

CONTROLS

R1401	RVR-M7893TAZZ	J	470(B) Sub-Contrast Adj.	AC
R1405	RVR-M7893TAZZ	J	470(B) Sub-Contrast Adj.	AC
R1489	RVR-M7899TAZZ	J	4.7k(B) Sign Level Adj.	AC
R1491	RVR-M7899TAZZ	J	4.7k(B) Contrast Adj.	AC
R1677	RVR-M7905TAZZ	J	47k(B) Sub-Bias Adj.	AC
R1680	RVR-M7905TAZZ	J	47k(B) Bias Adj.	AC
R1683	RVR-M7905TAZZ	J	47k(B) Sub-Bias Adj.	AC
R1692	RVR-M7905TAZZ	J	47k(B) γ Adj.	AC
R1714	RVR-M7901TAZZ	J	10k(B) γ Adj.	AC

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MAIN UNIT (Continued)

CAPACITORS

Ref. No.	Part No.	★	Description			Code
C1201	VCEAGA1EW227M	J	220	25V	Electrolytic	AC
C1202	VCEAGA1EW227M	J	220	25V	Electrolytic	AC
C1203	VCEAGA1EW227M	J	220	25V	Electrolytic	AC
C1204	VCEAGA1CW107M	J	100	16V	Electrolytic	AA
C1205	VCEAGA1CW107M	J	100	16V	Electrolytic	AA
C1206	VCEAGA1CW107M	J	100	16V	Electrolytic	AA
C1207	VCEAGA1CW107M	J	100	16V	Electrolytic	AA
C1208	VCEAGA1CW107M	J	100	16V	Electrolytic	AA
C1209	VCEAGA1CW107M	J	100	16V	Electrolytic	AA
C1210	VCEAGA1EW227M	J	220	25V	Electrolytic	AC
C1211	VCEAGA1EW107M	J	100	25V	Electrolytic	AD
C1212	VCEAGA1EW107M	J	100	25V	Electrolytic	AD
C1213	VCEAGA1EW227M	J	220	25V	Electrolytic	AC
C1214	VCEAGA1EW227M	J	220	25V	Electrolytic	AC
C1215	VCEAGA1CW107M	J	100	16V	Electrolytic	AA
C1216	VCEAGA1EW227M	J	220	25V	Electrolytic	AC
C1217	VCEAGA1EW227M	J	220	25V	Electrolytic	AC
C1242	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1401	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1402	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1403	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1404	VCEAPF1EW475M	J	4.7	25V	Electrolytic	AB
C1405	VCEAPF1EW475M	J	4.7	25V	Electrolytic	AB
C1406	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1407	VCEAPF1EW475M	J	4.7	25V	Electrolytic	AB
C1408	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1409	VCEAPF1EW475M	J	4.7	25V	Electrolytic	AB
C1410	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C1411	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1413	VCEAGA1CW107M	J	100	16V	Electrolytic	AA
C1414	VCEAPF1HW474M	J	0.47	50V	Electrolytic	AB
C1415	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C1416	VCEAPF1HW474M	J	0.47	50V	Electrolytic	AB
C1417	VCEAPF1HW474M	J	0.47	50V	Electrolytic	AB
C1418	VCEAPF1HW474M	J	0.47	50V	Electrolytic	AB
C1419	VCEAPF1HW474M	J	0.47	50V	Electrolytic	AB
C1432	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1433	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C1434	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C1435	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C1436	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1437	VCEAPF1HW474M	J	0.47	50V	Electrolytic	AB
C1438	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1440	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C1441	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C1442	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C1443	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1444	VCE9PF1HW105M	J	1	50V	Elect. (N.P)	AC
C1445	VCE9PF1HW105M	J	1	50V	Elect. (N.P)	AC
C1446	VCE9PF1HW105M	J	1	50V	Elect. (N.P)	AC
C1447	VCEAPF1HW105M	J	1	50V	Electrolytic	AB

CAPACITORS (Continued)

Ref. No.	Part No.	★	Description			Code
C1448	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C1449	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C1450	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1455	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1456	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1457	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1458	VCCCPA1HH120J	J	12p	50V	Ceramic	AA
C1459	VCCCPA1HH120J	J	12p	50V	Ceramic	AA
C1460	VCCCPA1HH120J	J	12p	50V	Ceramic	AA
C1461	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C1462	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C1463	VCEAGA1CW107M	J	100	16V	Electrolytic	AA
C1464	VCEAGA1CW107M	J	100	16V	Electrolytic	AA
C1557	VCCCTV1HH5R0C	J	5p	50V	Ceramic	AA
C1558	VCCCTV1HH5R0C	J	5p	50V	Ceramic	AA
C1559	VCCCTV1HH5R0C	J	5p	50V	Ceramic	AA
C1674	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1676	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1677	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1680	VCE9PF1HW105M	J	1	50V	Elect. (N.P)	AC
C1681	VCE9PF1HW105M	J	1	50V	Elect. (N.P)	AC
C1682	VCE9PF1HW105M	J	1	50V	Elect. (N.P)	AC
C2001	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C2002	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C2003	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C2004	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C2005	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C2006	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C2007	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C2008	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C2009	VCEAPF0JW476M	J	47	6.3V	Electrolytic	AB
C2010	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C2011	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C2012	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C2013	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C2014	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C2015	VCCCTV1HH151J	J	150p	50V	Ceramic	AA
C2016	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C2017	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C2018	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C2019	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C2020	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C2021	VCCCTV1HH680J	J	68p	50V	Ceramic	AA
C2022	VCCCTV1HH680J	J	68p	50V	Ceramic	AA
C2023	VCCCTV1HH680J	J	68p	50V	Ceramic	AA
C2024	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C2025	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C2026	VCQYTA1HM273J	J	0.027	50V	Mylar	AB
C2027	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C2028	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C2029	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C2030	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C2031	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C2032	VCEAPF1CW106M	J	10	16V	Electrolytic	AB

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MAIN UNIT (Continued)

CAPACITORS (Continued)

Ref. No.	Part No.	★	Description			Code
C2033	VCCCTV1HH151J	J	150p	50V	Ceramic	AA
C2034	VCCCTV1HH680J	J	68p	50V	Ceramic	AA
C2035	VCCCTV1HH680J	J	68p	50V	Ceramic	AA
C2036	VCCCTV1HH680J	J	68p	50V	Ceramic	AA
C2037	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C2038	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C2039	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C2040	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C2041	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C2042	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C2043	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C2044	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C2045	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C2046	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C2047	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C2048	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C2049	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C2050	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C2051	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C2052	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C2053	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C2054	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C2055	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C2056	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C2057	VCQYTA1HM563J	J	0.056	50V	Mylar	AB
C2058	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C2059	VCKYTV1HB182K	J	1800p	50V	Ceramic	AA
C2060	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C2061	VCCCTV1HH101J	J	100p	50V	Ceramic	AA
C2062	VCCCTV1HH101J	J	100p	50V	Ceramic	AA
C2063	VCCCTV1HH101J	J	100p	50V	Ceramic	AA
C2064	VCCCTV1HH820J	J	82p	50V	Ceramic	AA
C2065	VCCCTV1HH820J	J	82p	50V	Ceramic	AA
C2066	VCCCTV1HH820J	J	82p	50V	Ceramic	AA
C2067	VCCCTV1HH820J	J	82p	50V	Ceramic	AA
C2068	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C2069	VCEA2H0JW338M	J	3300	6.3V	Electrolytic	AE
C2070	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C2071	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C2073	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C2074	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C2075	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C2077	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C2079	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C2080	VCEAGA1EW107M	J	100	25V	Electrolytic	AD
C2081	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C2082	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C2083	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C2084	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C2085	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C2086	VCEAPF1CW476M	J	47	16V	Electrolytic	AC

CAPACITORS (Continued)

Ref. No.	Part No.	★	Description			Code
C2089	VCCCTV1HH820J	J	82p	50V	Ceramic	AA
C2090	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C2091	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA

RESISTORS

Ref. No.	Part No.	★	Description			Code
R1401	*See Controls*					
R1402	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1403	VRS-TV1JD221J	J	220	1/16W	Metal Oxide	AA
R1404	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1405	*See Controls*					
R1406	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1407	VRS-TV1JD103J	J	10k	1/16W	Metal Oxide	AA
R1408	VRS-TV1JD103J	J	10k	1/16W	Metal Oxide	AA
R1409	VRS-TV1JD103J	J	10k	1/16W	Metal Oxide	AA
R1410	VRS-TV1JD332J	J	3.3k	1/16W	Metal Oxide	AA
R1411	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R1412	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1413	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R1414	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R1415	VRN-TV1JD182D	J	1.8k	1/16W	Metal Film	AA
R1416	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1417	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1418	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1433	VRS-TV1JD103J	J	10k	1/16W	Metal Oxide	AA
R1446	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R1447	VRS-TV1JD820J	J	82	1/16W	Metal Oxide	AA
R1448	VRS-TV1JD820J	J	82	1/16W	Metal Oxide	AA
R1449	VRS-TV1JD223J	J	22k	1/16W	Metal Oxide	AA
R1450	VRS-TV1JD272J	J	2.7k	1/16W	Metal Oxide	AA
R1451	VRS-TV1JD103J	J	10k	1/16W	Metal Oxide	AA
R1452	VRS-TV1JD392J	J	3.9k	1/16W	Metal Oxide	AA
R1453	VRS-TV1JD222J	J	2.2k	1/16W	Metal Oxide	AA
R1454	VRS-TV1JD332J	J	3.3k	1/16W	Metal Oxide	AA
R1455	VRS-TV1JD123J	J	12k	1/16W	Metal Oxide	AA
R1456	VRS-TV1JD393J	J	39k	1/16W	Metal Oxide	AA
R1457	VRS-TV1JD103J	J	10k	1/16W	Metal Oxide	AA
R1458	VRS-TV1JD223J	J	22k	1/16W	Metal Oxide	AA
R1459	VRS-TV1JD473J	J	47k	1/16W	Metal Oxide	AA
R1460	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1461	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1462	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R1463	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R1464	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1465	VRN-TV1JD182D	J	1.8k	1/16W	Metal Film	AA
R1466	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1467	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1468	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1469	VRN-TV1JD102D	J	1k	1/16W	Metal Film	AA
R1470	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R1471	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1472	VRS-TV1JD182J	J	1.8k	1/16W	Metal Oxide	AA

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MAIN UNIT (Continued)

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R1473	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R1474	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R1475	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R1476	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1477	VRS-TV1JD104J	J	100k 1/16W Metal Oxide	AA
R1478	VRS-TV1JD104J	J	100k 1/16W Metal Oxide	AA
R1479	VRS-TV1JD123J	J	12k 1/16W Metal Oxide	AA
R1480	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R1481	VRS-TV1JD105J	J	1M 1/16W Metal Oxide	AA
R1482	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1483	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1484	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1485	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1486	VRS-TV1JD562J	J	5.6k 1/16W Metal Oxide	AA
R1487	VRS-TV1JD562J	J	5.6k 1/16W Metal Oxide	AA
R1489	*See Controls*			
R1490	VRS-TV1JD123J	J	12k 1/16W Metal Oxide	AA
R1491	*See Controls*			
R1492	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1493	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1494	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1495	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1497	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R1498	VRS-TV1JD561J	J	560 1/16W Metal Oxide	AA
R1499	VRS-TV1JD561J	J	560 1/16W Metal Oxide	AA
R1590	VRN-TV1JD122D	J	1.2k 1/16W Metal Film	AA
R1591	VRN-TV1JD332D	J	3.3k 1/16W Metal Film	AA
R1592	VRN-TV1JD122D	J	1.2k 1/16W Metal Film	AA
R1593	VRN-TV1JD332D	J	3.3k 1/16W Metal Film	AA
R1594	VRN-TV1JD122D	J	1.2k 1/16W Metal Film	AA
R1595	VRN-TV1JD332D	J	3.3k 1/16W Metal Film	AA
R1599	VRS-TV1JD561J	J	560 1/16W Metal Oxide	AA
R1677	*See Controls*			
R1676	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1678	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1679	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1680	*See Controls*			
R1681	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1682	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1683	*See Controls*			
R1684	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1688	VRN-TV1JD152D	J	1.5k 1/16W Metal Film	AA
R1689	VRN-TV1JD152D	J	1.5k 1/16W Metal Film	AA
R1690	VRN-TV1JD152D	J	1.5k 1/16W Metal Film	AA
R1691	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1692	*See Controls*			
R1693	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1697	VRS-TV1JD471J	J	470 1/16W Metal Oxide	AA
R1701	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R1702	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R1703	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R1704	VRN-TV1JD272D	J	2.7k 1/16W Metal Film	AA
R1705	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R1706	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R1707	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R1708	VRN-TV1JD272D	J	2.7k 1/16W Metal Film	AA
R1709	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R1710	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R1711	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R1712	VRN-TV1JD272D	J	2.7k 1/16W Metal Film	AA
R1713	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1714	*See Controls*			
R1715	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1716	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R1717	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R1718	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2001	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2002	VRS-TV1JD104J	J	100k 1/16W Metal Oxide	AA
R2003	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2004	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2005	VRS-TV1JD563J	J	56k 1/16W Metal Oxide	AA
R2006	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2007	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2008	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R2009	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2010	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2011	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2012	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2013	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2014	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2015	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2016	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2017	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2018	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2019	VRS-TV1JD124J	J	120k 1/16W Metal Oxide	AA
R2020	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2021	VRS-TV1JD823J	J	82k 1/16W Metal Oxide	AA
R2022	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2023	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2024	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2025	VRS-TV1JD104J	J	100k 1/16W Metal Oxide	AA
R2026	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2027	VRS-TV1JD824J	J	820k 1/16W Metal Oxide	AA
R2028	VRN-TV1JD392D	J	3.9k 1/16W Metal Film	AA
R2029	VRS-TV1JD392J	J	3.9k 1/16W Metal Oxide	AA
R2030	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2031	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2032	VRS-TV1JD821J	J	820 1/16W Metal Oxide	AA
R2033	VRS-TV1JD151J	J	150 1/16W Metal Oxide	AA
R2034	VRS-TV1JD821J	J	820 1/16W Metal Oxide	AA
R2035	VRS-TV1JD151J	J	150 1/16W Metal Oxide	AA
R2036	VRS-TV1JD821J	J	820 1/16W Metal Oxide	AA
R2037	VRS-TV1JD151J	J	150 1/16W Metal Oxide	AA
R2038	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2039	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA

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MAIN UNIT (Continued)

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R2040	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2041	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2042	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2043	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2044	VRS-TX2HF681J	J	680 1/2W Metal Oxide	AA
R2045	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R2046	VRS-TV1JD682J	J	6.8k 1/16W Metal Oxide	AA
R2047	VRS-TV1JD333J	J	33k 1/16W Metal Oxide	AA
R2048	VRS-TV1JD682J	J	6.8k 1/16W Metal Oxide	AA
R2049	VRS-TV1JD333J	J	33k 1/16W Metal Oxide	AA
R2050	VRS-TV1JD682J	J	6.8k 1/16W Metal Oxide	AA
R2051	VRS-TV1JD333J	J	33k 1/16W Metal Oxide	AA
R2052	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2053	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R2054	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2055	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2056	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2057	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2058	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2059	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2060	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2061	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2062	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2063	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2064	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2065	VRS-TV1JD273J	J	27k 1/16W Metal Oxide	AA
R2066	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2067	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2068	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2069	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2070	VRS-TV1JD471J	J	470 1/16W Metal Oxide	AA
R2071	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2072	VRS-TV1JD562J	J	5.6k 1/16W Metal Oxide	AA
R2073	VRS-TV1JD392J	J	3.9k 1/16W Metal Oxide	AA
R2074	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R2075	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R2076	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R2077	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2078	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R2079	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2080	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2081	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2082	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2083	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2084	VRS-TV1JD682J	J	6.8k 1/16W Metal Oxide	AA
R2085	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2086	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R2087	VRS-TV1JD682J	J	6.8k 1/16W Metal Oxide	AA
R2088	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2089	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R2090	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R2091	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2093	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2094	VRS-TV1JD272J	J	2.7k 1/16W Metal Oxide	AA
R2095	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2096	VRS-TV1JD105J	J	1M 1/16W Metal Oxide	AA
R2097	VRS-TV1JD105J	J	1M 1/16W Metal Oxide	AA
R2098	VRS-TV1JD471J	J	470 1/16W Metal Oxide	AA
R2099	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2101	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2102	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2103	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2104	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2105	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2106	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2107	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2108	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2109	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R2110	VRS-TV1JD562J	J	5.6k 1/16W Metal Oxide	AA
R2111	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R2112	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R2113	VRS-TV1JD223J	J	22k 1/16W Metal Oxide	AA
R2114	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2115	VRS-TV1JD471J	J	470 1/16W Metal Oxide	AA
R2116	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R2117	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2118	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2119	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2120	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2121	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2122	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2123	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2124	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2125	VRS-TV1JD471J	J	470 1/16W Metal Oxide	AA
R2126	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2127	VRS-TV1JD105J	J	1M 1/16W Metal Oxide	AA
R2128	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R2129	VRS-TV1JD223J	J	22k 1/16W Metal Oxide	AA
R2130	VRS-TV1JD223J	J	22k 1/16W Metal Oxide	AA
R2131	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R2132	VRS-TV1JD223J	J	22k 1/16W Metal Oxide	AA
R2133	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R2134	VRS-TV1JD223J	J	22k 1/16W Metal Oxide	AA
R2135	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R2136	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2137	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2139	VRS-TV1JD822J	J	8.2k 1/16W Metal Oxide	AA
R2140	VRS-TV1JD223J	J	22k 1/16W Metal Oxide	AA
R2141	VRS-TV1JD000J	J	0 1/16W Metal Oxide	AA
R2142	VRS-TV1JD000J	J	0 1/16W Metal Oxide	AA
R2143	VRS-TV1JD682J	J	6.8k 1/16W Metal Oxide	AA
R2144	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2145	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2146	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2147	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code

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MAIN UNIT (Continued)

RESISTORS (Continued)

R2148	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2149	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2150	VRS-TV1JD682J	J	6.8k 1/16W Metal Oxide	AA
R2152	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2153	VRS-TV1JD682J	J	6.8k 1/16W Metal Oxide	AA
R2154	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R2155	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R2156	VRS-TV1JD104J	J	100k 1/16W Metal Oxide	AA
R2157	VRS-TV1JD123J	J	12k 1/16W Metal Oxide	AA
R2158	VRS-TV1JD153J	J	15k 1/16W Metal Oxide	AA
R2159	VRS-TV1JD104J	J	100k 1/16W Metal Oxide	AA
R2160	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R2161	VRS-TV1JD682J	J	6.8k 1/16W Metal Oxide	AA
R2162	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2163	VRS-TV1JD471J	J	470 1/16W Metal Oxide	AA
R2164	VRS-TX2HF5R6J	J	5.6 1/2W Metal Oxide	AA
R2165	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2166	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2172	VRS-TV1JD000J	J	0 1/16W Metal Oxide	AA
R2173	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2174	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2175	VRS-TV1JD823J	J	82k 1/16W Metal Oxide	AA
R2176	VRS-TV1JD104J	J	100k 1/16W Metal Oxide	AA
R2177	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2178	VRS-TV1JD223J	J	22k 1/16W Metal Oxide	AA
R2179	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2180	VRS-TV1JD000J	J	0 1/16W Metal Oxide	AA
R2186	VRS-TV1JD682J	J	6.8k 1/16W Metal Oxide	AA
R2190	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2191	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2192	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2193	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2194	VRS-TV1JD332J	J	3.3k 1/16W Metal Oxide	AA
R2195	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2197	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2198	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2199	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2201	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2202	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2203	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2204	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R2205	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R2206	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R2207	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R2208	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R2209	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R2210	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2211	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2212	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R2213	VRS-TX2HF681J	J	680 1/2W Metal Oxide	AA
R2214	VRS-TV1JD333J	J	33k 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code

RESISTORS (Continued)

R2215	VRS-TV1JD273J	J	27k 1/16W Metal Oxide	AA
R2216	VRS-TV1JD333J	J	33k 1/16W Metal Oxide	AA
R2217	VRS-TV1JD273J	J	27k 1/16W Metal Oxide	AA
R2218	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2219	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2220	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2221	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R2222	VRS-TV1JD561J	J	560 1/16W Metal Oxide	AA
R2223	VRS-TV1JD561J	J	560 1/16W Metal Oxide	AA
R2224	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2226	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2227	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2228	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2229	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2230	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2237	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R2238	VRS-TV1JD562J	J	5.6k 1/16W Metal Oxide	AA
R2239	VRS-TV1JD272J	J	2.7k 1/16W Metal Oxide	AA
R2240	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R2341	VRS-TV1JD272J	J	2.7k 1/16W Metal Oxide	AA
R2342	VRS-TV1JD562J	J	5.6k 1/16W Metal Oxide	AA

SWITCH

S2001	QSW-K0051GEZZ	J	E^2PROM	AB

MISCELLANEOUS PARTS

FB1201	RBLN-0065CEZZ	J	Ferrite Bead	AB
	QPLGN0278GEZZ	J	Plug 2-pin, (D), (LF), (LL), (Q)	AA
	QPLGN0378GEZZ	J	Plug 3-pin, (EC), (RA), (SB)	AB
	QPLGN0478GEZZ	J	Plug 4-pin, (ED), (EG), (RB)	AB
	QPLGN0578GEZZ	J	Plug 5-pin, (EB)	AB
	QPLGN0678GEZZ	J	Plug 6-pin, (CA), (EA), (LE)	AB
	QPLGN0778GEZZ	J	Plug 7-pin, (EF), (MB), (MD), (UG)	AC
	QPLGN0878GEZZ	J	Plug 8-pin, (AF), (GD), (MA), (MC)	AC
	QPLGN0978GEZZ	J	Plug 9-pin, (CS)	AC
	QPLGZ0630GEZZ	J	Plug 6-pin, (CC), (CD)	AC
	QPLGZ1130GEZZ	J	Plug 11-pin, (GB)	AC

—— End of MAIN UNIT ——

Ref. No.	Part No.	★	Description	Code

DUNTK8065DE01
OUTPUT UNIT

INTEGRATED CIRCUITS

IC1501	RH-iX1973CEZZ	J		AG
IC1502	RH-iX1973CEZZ	J		AG
IC1503	RH-iX1973CEZZ	J		AG
IC1504	VHiLM6361M/-1	J		AR
IC1505	VHiTC4052BF-1	J		AE
IC1506	VHiLM6361M/-1	J		AR
IC1507	VHiTC4052BF-1	J		AE
IC1508	VHiLM6361M/-1	J		AR
IC1509	VHiTC4052BF-1	J		AE

TRANSISTORS

Q1501	VSBC847B1F/-1	J	BC847B1F	AA
Q1502	VSBC857B3F/-1	J	BC857B3F	AA
Q1503	VSBC857B3F/-1	J	BC857B3F	AA
Q1504	VSBC847B1F/-1	J	BC847B1F	AA
Q1505	VSBC847B1F/-1	J	BC847B1F	AA
Q1506	VSBC857B3F/-1	J	BC857B3F	AA
Q1507	VSBC847B1F/-1	J	BC847B1F	AA
Q1508	VSBC857B3F/-1	J	BC857B3F	AA
Q1509	VSBC857B3F/-1	J	BC857B3F	AA
Q1510	VSBC847B1F/-1	J	BC847B1F	AA
Q1511	VSBC847B1F/-1	J	BC847B1F	AA
Q1512	VSBC857B3F/-1	J	BC857B3F	AA
Q1513	VSBC847B1F/-1	J	BC847B1F	AA
Q1514	VSBC857B3F/-1	J	BC857B3F	AA
Q1515	VSBC857B3F/-1	J	BC857B3F	AA
Q1516	VSBC847B1F/-1	J	BC847B1F	AA
Q1517	VSBC847B1F/-1	J	BC847B1F	AA
Q1518	VSBC857B3F/-1	J	BC857B3F	AA
Q1519	VSBC847B1F/-1	J	BC847B1F	AA
Q1520	VSBC857B3F/-1	J	BC857B3F	AA
Q1521	VSBC857B3F/-1	J	BC857B3F	AA
Q1522	VSBC847B1F/-1	J	BC847B1F	AA
Q1523	VSBC847B1F/-1	J	BC847B1F	AA
Q1524	VSBC857B3F/-1	J	BC857B3F	AA
Q1525	VSBC847B1F/-1	J	BC847B1F	AA
Q1526	VSBC857B3F/-1	J	BC857B3F	AA
Q1527	VSBC857B3F/-1	J	BC857B3F	AA
Q1528	VSBC847B1F/-1	J	BC847B1F	AA
Q1529	VSBC847B1F/-1	J	BC847B1F	AA
Q1530	VSBC857B3F/-1	J	BC857B3F	AA
Q1531	VSBC847B1F/-1	J	BC847B1F	AA
Q1532	VSBC857B3F/-1	J	BC857B3F	AA
Q1533	VSBC857B3F/-1	J	BC857B3F	AA
Q1534	VSBC847B1F/-1	J	BC847B1F	AA
Q1535	VSBC847B1F/-1	J	BC847B1F	AA
Q1536	VSBC857B3F/-1	J	BC857B3F	AA

Ref. No.	Part No.	★	Description	Code

DIODES

D1501	VHDMA153///-1	J	MA153	AB
D1502	VHDMA153///-1	J	MA153	AB
D1503	VHDMA153///-1	J	MA153	AB
D1504	VHDMA153///-1	J	MA153	AB
D1505	VHDMA153///-1	J	MA153	AB
D1506	VHDMA153///-1	J	MA153	AB

COILS

CF1401	RFiLN0097GEZZ	J	Ceramic Filter	AF
CF1504	RFiLN0097GEZZ	J	Ceramic Filter	AF
CF1505	RFiLN0097GEZZ	J	Ceramic Filter	AF
CF1506	RFiLN0097GEZZ	J	Ceramic Filter	AF
CF1507	RFiLN0097GEZZ	J	Ceramic Filter	AF
CF1508	RFiLN0097GEZZ	J	Ceramic Filter	AF
CF1509	RFiLN0097GEZZ	J	Ceramic Filter	AF
L1501	RCiLF0122CEZZ	J	Coil, Filter	AC
L1502	RCiLF0122CEZZ	J	Coil, Filter	AC

CONTROLS

R1556	RVR-M7901TAZZ	J	10k(B)	Peak Clip Adj.	AC
R1558	RVR-M7901TAZZ	J	10k(B)	Peak Clip Adj.	AC
R1570	RVR-M7905TAZZ	J	47k(B)	Bias Adj.	AC

CAPACITORS

C1501	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C1502	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C1503	VCEAGA1EW227M	J	220	25V	Electrolytic	AC
C1504	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C1505	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1506	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1507	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1508	VCEAGA1EW227M	J	220	25V	Electrolytic	AC
C1509	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C1510	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1511	VCKYTV1HF104Z	J	0.1	50V	Ceramic	AA
C1512	VCKYTV1HF104Z	J	0.1	50V	Ceramic	AA
C1513	VCKYTV1HF104Z	J	0.1	50V	Ceramic	AA
C1514	VCEAGA1CW107M	J	100	16V	Electrolytic	AB
C1515	VCKYTV1HF104Z	J	0.1	50V	Ceramic	AA
C1516	VCEAGA1CW107M	J	100	16V	Electrolytic	AB
C1517	VCKYTV1HF104Z	J	0.1	50V	Ceramic	AA
C1518	VCKYTV1HF104Z	J	0.1	50V	Ceramic	AA
C1519	VCEAPF1HW106M	J	10	50V	Electrolytic	AB
C1520	VCKYTV1HF104Z	J	0.1	50V	Ceramic	AA
C1521	VCEAPF1HW106M	J	10	50V	Electrolytic	AB
C1522	VCKYTV1HF104Z	J	0.1	50V	Ceramic	AA
C1523	VCEAGA1CW107M	J	100	16V	Electrolytic	AB
C1524	VCKYTV1HF104Z	J	0.1	50V	Ceramic	AA

DUNTK8065DE01
OUTPUT UNIT (Continued)

CAPACITORS (Continued)

Ref. No.	Part No.	★	Description			Code
C1525	VCEAGA1CW107M	J	100	16V	Electrolytic	AB
C1526	VCKYTV1HF104Z	J	0.1	50V	Ceramic	AA
C1527	VCEAPF1HW106M	J	10	50V	Electrolytic	AB
C1528	VCKYTV1HF104Z	J	0.1	50V	Ceramic	AA
C1529	VCEAPF1HW106M	J	10	50V	Electrolytic	AB
C1530	VCKYTV1HF104Z	J	0.1	50V	Ceramic	AA
C1531	VCEAGA1CW107M	J	100	16V	Electrolytic	AB
C1532	VCKYTV1HF104Z	J	0.1	50V	Ceramic	AA
C1533	VCEAGA1CW107M	J	100	16V	Electrolytic	AB
C1534	VCEAPF1HW106M	J	10	50V	Electrolytic	AB
C1535	VCKYTV1HF104Z	J	0.1	50V	Ceramic	AA
C1536	VCKYTV1HF104Z	J	0.1	50V	Ceramic	AA
C1537	VCEAPF1HW106M	J	10	50V	Electrolytic	AB
C1538	VCCCTV1HH5R0C	J	5p	50V	Ceramic	AA
C1539	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1540	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1542	VCCCTV1HH5R0C	J	5p	50V	Ceramic	AA
C1543	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1546	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1547	VCCCTV1HH5R0C	J	5p	50V	Ceramic	AA
C1548	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1550	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1551	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1552	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1553	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1554	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1555	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1556	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1563	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C1564	VCEAGA1CW107M	J	100	16V	Electrolytic	AB
C1565	VCEAGA1CW107M	J	100	16V	Electrolytic	AB
C1566	VCEAGA1CW107M	J	100	16V	Electrolytic	AB

RESISTORS

Ref. No.	Part No.	★				Code
R1501	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1502	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1503	VRS-TX2HF122J	J	1.2k	1/2W	Metal Oxide	AA
R1504	VRS-TX2HF122J	J	1.2k	1/2W	Metal Oxide	AA
R1505	VRS-TV1JD470J	J	47	1/16W	Metal Oxide	AA
R1506	VRS-TV1JD470J	J	47	1/16W	Metal Oxide	AA
R1507	VRS-TV1JD2R2J	J	2.2	1/16W	Metal Oxide	AA
R1508	VRS-TV1JD2R2J	J	2.2	1/16W	Metal Oxide	AA
R1509	VRS-TV1JD5R6J	J	5.6	1/16W	Metal Oxide	AA
R1510	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1511	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1512	VRS-TX2HF122J	J	1.2k	1/2W	Metal Oxide	AA
R1513	VRS-TX2HF122J	J	1.2k	1/2W	Metal Oxide	AA
R1514	VRS-TV1JD470J	J	47	1/16W	Metal Oxide	AA

RESISTORS (Continued)

Ref. No.	Part No.	★				Code
R1515	VRS-TV1JD470J	J	47	1/16W	Metal Oxide	AA
R1516	VRS-TV1JD2R2J	J	2.2	1/16W	Metal Oxide	AA
R1517	VRS-TV1JD2R2J	J	2.2	1/16W	Metal Oxide	AA
R1518	VRS-TV1JD5R6J	J	5.6	1/16W	Metal Oxide	AA
R1519	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1520	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1521	VRS-TX2HF122J	J	1.2k	1/2W	Metal Oxide	AA
R1522	VRS-TX2HF122J	J	1.2k	1/2W	Metal Oxide	AA
R1523	VRS-TV1JD470J	J	47	1/16W	Metal Oxide	AA
R1524	VRS-TV1JD470J	J	47	1/16W	Metal Oxide	AA
R1525	VRS-TV1JD2R2J	J	2.2	1/16W	Metal Oxide	AA
R1526	VRS-TV1JD2R2J	J	2.2	1/16W	Metal Oxide	AA
R1527	VRS-TV1JD5R6J	J	5.6	1/16W	Metal Oxide	AA
R1528	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1529	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1530	VRS-TX2HF122J	J	1.2k	1/2W	Metal Oxide	AA
R1531	VRS-TX2HF122J	J	1.2k	1/2W	Metal Oxide	AA
R1532	VRS-TV1JD470J	J	47	1/16W	Metal Oxide	AA
R1533	VRS-TV1JD470J	J	47	1/16W	Metal Oxide	AA
R1534	VRS-TV1JD2R2J	J	2.2	1/16W	Metal Oxide	AA
R1535	VRS-TV1JD2R2J	J	2.2	1/16W	Metal Oxide	AA
R1536	VRS-TV1JD5R6J	J	5.6	1/16W	Metal Oxide	AA
R1537	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1538	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1539	VRS-TX2HF122J	J	1.2k	1/2W	Metal Oxide	AA
R1540	VRS-TX2HF122J	J	1.2k	1/2W	Metal Oxide	AA
R1541	VRS-TV1JD470J	J	47	1/16W	Metal Oxide	AA
R1542	VRS-TV1JD470J	J	47	1/16W	Metal Oxide	AA
R1543	VRS-TV1JD2R2J	J	2.2	1/16W	Metal Oxide	AA
R1544	VRS-TV1JD2R2J	J	2.2	1/16W	Metal Oxide	AA
R1545	VRS-TV1JD5R6J	J	5.6	1/16W	Metal Oxide	AA
R1546	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1547	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1548	VRS-TX2HF122J	J	1.2k	1/2W	Metal Oxide	AA
R1549	VRS-TX2HF122J	J	1.2k	1/2W	Metal Oxide	AA
R1550	VRS-TV1JD470J	J	47	1/16W	Metal Oxide	AA
R1551	VRS-TV1JD470J	J	47	1/16W	Metal Oxide	AA
R1552	VRS-TV1JD2R2J	J	2.2	1/16W	Metal Oxide	AA
R1553	VRS-TV1JD2R2J	J	2.2	1/16W	Metal Oxide	AA
R1554	VRS-TV1JD5R6J	J	5.6	1/16W	Metal Oxide	AA
R1555	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R1556	*See Controls*					
R1557	VRS-TV1JD103J	J	10k	1/16W	Metal Oxide	AA
R1558	*See Controls*					
R1559	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R1560	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R1561	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R1562	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R1563	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R1564	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R1565	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R1566	VRS-TV1JD6R8J	J	6.8	1/16W	Metal Oxide	AA
R1567	VRS-TV1JD6R8J	J	6.8	1/16W	Metal Oxide	AA
R1568	VRS-TV1JD6R8J	J	6.8	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code

DUNTK8065DE01
OUTPUT UNIT (Continued)

RESISTORS (Continued)

R1569	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1570	*See Controls*			
R1571	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1572	VRN-TV1JD122D	J	1.2k 1/16W Metal Film	AA
R1573	VRS-TV1JD392J	J	3.9k 1/16W Metal Oxide	AA
R1574	VRN-TV1JD122D	J	1.2k 1/16W Metal Film	AA
R1576	VRN-TV1JD122D	J	1.2k 1/16W Metal Film	AA
R1577	VRS-TV1JD392J	J	3.9k 1/16W Metal Oxide	AA
R1578	VRN-TV1JD122D	J	1.2k 1/16W Metal Film	AA
R1580	VRN-TV1JD122D	J	1.2k 1/16W Metal Film	AA
R1581	VRS-TV1JD392J	J	3.9k 1/16W Metal Oxide	AA
R1582	VRN-TV1JD122D	J	1.2k 1/16W Metal Film	AA
R1584	VRS-TV1JD105J	J	1M 1/16W Metal Oxide	AA
R1585	VRS-TV1JD105J	J	1M 1/16W Metal Oxide	AA
R1586	VRS-TV1JD105J	J	1M 1/16W Metal Oxide	AA
R1587	VRS-TV1JD105J	J	1M 1/16W Metal Oxide	AA
R1588	VRS-TV1JD105J	J	1M 1/16W Metal Oxide	AA
R1589	VRS-TV1JD105J	J	1M 1/16W Metal Oxide	AA

MISCELLANEOUS PARTS

	QPLGN0678GEZZ	J	Plug 6-pin, (CF)	AB
	QPLGN0778GEZZ	J	Plug 7-pin, (EF), (MD)	AC
	QPLGN0978GEZZ	J	Plug 9-pin, (CO)	AC
	QPLGN1278GEZZ	J	Plug 12-pin, (CB)	AC
	QSOCN0091FJZZ	J	Socket, (R), (G), (B)	AF

—— End of OUTPUT UNIT ——

Ref. No.	Part No.	★	Description	Code

DUNTK8066DE01
AUDIO AMP. UNIT

INTEGRATED CIRCUITS

IC303	VHiMB3110A/-1	J		AH
IC304	VHiTDA7056/-1	J	TDA7056	AP

TRANSISTORS

Q302	VSBC847B1F/-1	J	BC847B1F	AA
Q303	VSBC847B1F/-1	J	BC847B1F	AA

DIODE

D303	VHDDAN202U/-1	J		AA

COIL

L301	RCiLF0174CEZZ	J	Coil, Filter	AC

CAPACITORS

C308	VCCCTV1HH330J	J	33p	50V	Ceramic	AA
C309	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C310	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C311	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C312	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C313	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C314	VCKYTV1EF683Z	J	0.068	25V	Ceramic	AA
C315	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C316	VCEAGA1CW477M	J	470	16V	Electrolytic	AC
C317	VCKYCY1CF473Z	J	0.047	16V	Ceramic	AA
C318	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C319	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C320	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA

RESISTORS

R313	VRS-TV1JD332J	J	3.3k	1/16W	Metal Oxide	AA
R314	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R315	VRS-TX2HF8R2J	J	8.2	1/2W	Metal Oxide	AA
R316	VRS-TX2HF8R2J	J	8.2	1/2W	Metal Oxide	AA
R317	VRS-TV1JD222J	J	2.2k	1/16W	Metal Oxide	AA
R318	VRS-TV1JD105J	J	1M	1/16W	Metal Oxide	AA
R319	VRS-TV1JD100J	J	10	1/16W	Metal Oxide	AA
R320	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R321	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R323	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R324	VRS-TV1JD472J	J	4.7k	1/16W	Metal Oxide	AA
R325	VRS-TV1JD472J	J	4.7k	1/16W	Metal Oxide	AA
R326	VRS-TV1JD152J	J	1.5k	1/16W	Metal Oxide	AA
R327	VRS-TV1JD103J	J	10k	1/16W	Metal Oxide	AA
R328	VRS-TV1JD332J	J	3.3k	1/16W	Metal Oxide	AA

MISCELLANEOUS PARTS

	QPLGN0278GEZZ	J	Plug 2-pin, (SA), (SB)	AA
	QPLGN0378GEZZ	J	Plug 3-pin, (ES), (SP)	AB

—— End of SOUND OUTPUT UNIT ——

Ref. No.	Part No.	★	Description	Code

DUNTK8067DE01
SUB UNIT

INTEGRATED CIRCUITS

IC101	VHiNJM2245M-1	J		AF
IC401	VHiNJM2245M-1	J		AF
IC402	VHiNJM2245M-1	J		AF
IC403	VHiNJM2243M-1	J		AF
IC404	VHiNJ2233BM-1	J		AE
IC405	VHiTA7805S/-1	J		AD
IC406	VHiH11559NT-1	J		AS
IC407	VHiM51494L/-1	J		AK
IC601	RH-iX0638GEZZ	J	TC74HC4049AF	AD
IC605	VHiTC4538AF-1	J		AH
IC606	VHiTC4W53F/-1	J		AE
IC607	VHiTC4538AF-1	J		AH
IC801	VHiTA8795F/-1	J		AZ
IC802	VHiM52047SP-1	J		AT
IC803	VHiTA8647S/-1	J		AR
IC804	RH-iX0996CEZZ	J	IR3P32A1	AT
IC805	VHiNJM2902M-1	J		AF
IC1401	VHiM52055FP-1	J		AH
IC4001	VHiCXA1686M-1	J		AT
IC4003	VHiMC141625-1	J		BA

TRANSISTORS

Q101	VSBC847B1F/-1	J	BC847B1F	AA
Q401	VSDTC144EK/-1	J	DTC144EK	AB
Q402	VSBC847B1F/-1	J	BC847B1F	AA
Q403	VSDTC144EK/-1	J	DTC144EK	AB
Q404	VSDTC144EK/-1	J	DTC144EK	AB
Q405	VSBC847B1F/-1	J	BC847B1F	AA
Q406	VSBC847B1F/-1	J	BC847B1F	AA
Q407	VSBC847B1F/-1	J	BC847B1F	AA
Q408	VSBC847B1F/-1	J	BC847B1F	AA
Q409	VSBC847B1F/-1	J	BC847B1F	AA
Q410	VSBC847B1F/-1	J	BC847B1F	AA
Q411	VSBC857B3F/-1	J	BC857B3F	AA
Q412	VSBC847B1F/-1	J	BC847B1F	AA
Q413	VSBC847B1F/-1	J	BC847B1F	AA
Q414	VSBC847B1F/-1	J	BC847B1F	AA
Q415	VSBC847B1F/-1	J	BC847B1F	AA
Q416	VSBC847B1F/-1	J	BC847B1F	AA
Q417	VSBC857B3F/-1	J	BC857B3F	AA
Q419	VSBC847B1F/-1	J	BC847B1F	AA
Q420	VSBC857B3F/-1	J	BC857B3F	AA
Q421	VSBC857B3F/-1	J	BC857B3F	AA
Q601	VSBC857B3F/-1	J	BC857B3F	AA
Q602	VSBC847B1F/-1	J	BC847B1F	AA
Q604	VSBC847B1F/-1	J	BC847B1F	AA
Q801	VSBC847B1F/-1	J	BC847B1F	AA
Q802	VSBC857B3F/-1	J	BC857B3F	AA
Q803	VSBC847B1F/-1	J	BC847B1F	AA

Ref. No.	Part No.	★	Description	Code

TRANSISTORS (Continued)

Q804	VSBC847B1F/-1	J	BC847B1F	AA
Q805	VSBC857B3F/-1	J	BC857B3F	AA
Q806	VSBC847B1F/-1	J	BC847B1F	AA
Q807	VSBC847B1F/-1	J	BC847B1F	AA
Q808	VSBC857B3F/-1	J	BC857B3F	AA
Q809	VSBC847B1F/-1	J	BC847B1F	AA
Q810	VSBC847B1F/-1	J	BC847B1F	AA
Q811	VSBC857B3F/-1	J	BC857B3F	AA
Q812	VSBC847B1F/-1	J	BC847B1F	AA
Q813	VSDTC144EK/-1	J	DTC144EK	AB
Q1401	VSBC847B1F/-1	J	BC847B1F	AA
Q1402	VSBC847B1F/-1	J	BC847B1F	AA
Q1403	VSBC847B1F/-1	J	BC847B1F	AA
Q1404	VSBC857B3F/-1	J	BC857B3F	AA
Q1405	VSBC857B3F/-1	J	BC857B3F	AA
Q1406	VSBC857B3F/-1	J	BC857B3F	AA
Q1407	VSBC847B1F/-1	J	BC847B1F	AA
Q1408	VSBC847B1F/-1	J	BC847B1F	AA
Q1409	VSBC847B1F/-1	J	BC847B1F	AA
Q1420	VSBC857B3F/-1	J	BC857B3F	AA
Q1421	VSBC847B1F/-1	J	BC847B1F	AA
Q1422	VSBC857B3F/-1	J	BC857B3F	AA
Q1423	VSBC847B1F/-1	J	BC847B1F	AA
Q1424	VSBC857B3F/-1	J	BC857B3F	AA
Q1425	VSBC847B1F/-1	J	BC847B1F	AA
Q4003	VSBC847B1F/-1	J	BC847B1F	AA
Q4007	VSBC847B1F/-1	J	BC847B1F	AA
Q4008	VSBC847B1F/-1	J	BC847B1F	AA
Q4009	VSBC847B1F/-1	J	BC847B1F	AA
Q4010	VSBC847B1F/-1	J	BC847B1F	AA
Q4011	VSBC847B1F/-1	J	BC847B1F	AA
Q4012	VSBC847B1F/-1	J	BC847B1F	AA
Q4014	VSBC847B1F/-1	J	BC847B1F	AA
Q4015	VSDTC144EK/-1	J	DTC144EK	AB
Q4018	VSBC847B1F/-1	J	BC847B1F	AA
Q4019	VSBC847B1F/-1	J	BC847B1F	AA
Q4020	VSBC847B1F/-1	J	BC847B1F	AA
Q4021	VSBC847B1F/-1	J	BC847B1F	AA
Q4022	VSDTC144EK/-1	J	DTC144EK	AB
Q4023	VSBC857B3F/-1	J	BC857B3F	AA
Q4024	VSBC847B1F/-1	J	BC847B1F	AA

DIODES

D101	RH-EX0226CEZZ	J	Zener Diode	AB
D102	RH-EX0226CEZZ	J	Zener Diode	AB
D103	RH-EX0226CEZZ	J	Zener Diode	AB
D401	RH-EX0226CEZZ	J	Zener Diode	AB
D402	RH-EX0226CEZZ	J	Zener Diode	AB
D403	RH-EX0226CEZZ	J	Zener Diode	AB
D404	RH-EX0226CEZZ	J	Zener Diode	AB
D414	RH-EX0226CEZZ	J	Zener Diode	AB
D417	VHDMA152WK/-1	J		AA

Ref. No.	Part No.	★	Description	Code

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SUB UNIT (Continued)

DIODES (Continued)

D418	VHDMA152WK/-1	J		AA
D420	VHDMA152WK/-1	J		AA
D421	RH-EX0226CEZZ	J	Zener Diode	AB
D422	VHDMA152WK/-1	J		AA
D801	VHDMA152WK/-1	J		AA
D802	VHDMA152WK/-1	J		AA
D803	RH-EX0226CEZZ	J	Zener Diode	AB
D804	RH-EX0226CEZZ	J	Zener Diode	AB
D805	RH-EX0226CEZZ	J	Zener Diode	AB
D807	VHDMA152WK/-1	J		AA
D4001	VHDMA153WK/-1	J		AA
D4002	VHDMA152WK/-1	J		AA

PACKAGED CIRCUITS

X801	RCRSB0055GEZZ	J	Crystal	AH
X802	RCRSB0058GEZZ	J	Crystal	AH
X4001	RCRSB0085GEZZ	J	Crystal	AG
X4002	RCRSB0089GEZZ	J	Crystal	AG

COILS AND TRANSFORMERS

CF401	RFiLC0024GEZZ	J	Ceramic Filter	AE
CF402	RFiLC0286CEZZ	J	Ceramic Filter	AE
CF801	RFiLA0034CEZZ	J	Ceramic Filter	AD
DL401	RCiLZ0740CEZZ	J	Delay Line	AH
DL403	RCiLZ0788CEZZ	J	Delay Line	AH
DL801	RCiLZ0808CEZZ	J	Delay Line	AR
FL4001	RCiLF0252CEZZ	J	Filter	AH
FL4002	RFiLN0050CEZZ	J	Filter	AB
FL4003	RCiLF0252CEZZ	J	Filter	AH
FL4004	RFiLA0007CEZZ	J	Filter	AE
L401	VP-MK180K0000	J	18μH	AB
L405	RCiLF0174CEZZ	J	Coil, Filter	AC
L406	VP-MK101K0000	J	100μH	AB
L407	VP-MK220K0000	J	22μH	AB
L801	VP-MK150K0000	J	15μH	AB
L802	VP-MK220K0000	J	22μH	AB
L803	VP-MK101K0000	J	100μH	AB
L4004	VP-MK180K0000	J	18μH	AB
L4005	VP-MK270K0000	J	27μH	AB
T401	RCiLi0512CEZZ	J	IF Coil	AE
T402	RCiLi0520CEZZ	J	IF Coil	AE
T801	RCiLi0364CEZZ	J	IF Coil	AD
T802	RCiLi0435CEZZ	J	IF Coil	AE
T803	RCiLZ0511CEZZ	J	Coil	AD
T804	RCiLi0435CEZZ	J	IF Coil	AE
T805	RCiLi0435CEZZ	J	IF Coil	AE

Ref. No.	Part No.	★	Description	Code

CONTROLS

R487	RVR-M7897TAZZ	J	2.2k(B)	Y-Level	AC
R614	RVR-M7901TAZZ	J	10k(B)	PAL/SECAM H-Center Adj.	AC
R812	RVR-M7895TAZZ	J	1k(B)	1H DL Amp.	AC
R817	RVR-M7901TAZZ	J	10k(B)	Sub-Colour	AC
R878	RVR-M7901TAZZ	J	10k(B)	AGC Adj.	AC
R890	RVR-M7903TAZZ	J	22k(B)	Sub-Tint	AC
R1441	RVR-M7899TAZZ	J	4.7k(B)	PAL/SECAM Sub-Contrast	AC
R1445	RVR-M7899TAZZ	J	4.7k(B)	PAL/SECAM Sub-Contrast	AC
R4037	RVR-M7895TAZZ	J	1k(B)	γ Level ADj.	AC
R4059	RVR-M7892TAZZ	J	330(B)		AC

CAPACITORS

C102	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C104	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C106	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C107	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C108	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C109	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C110	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C401	VCCCTV1HH680J	J	68p	50V	Ceramic	AA
C402	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C403	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C404	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C405	VCCCTV1HH680J	J	68p	50V	Ceramic	AA
C406	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C407	VCCCTV1HH680J	J	68p	50V	Ceramic	AA
C408	VCCCTV1HH680J	J	68p	50V	Ceramic	AA
C409	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C410	VCE9PF1CW106M	J	10	16V	Elect. (N.P)	AC
C411	VCE9PF1CW106M	J	10	16V	Elect. (N.P)	AC
C412	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C413	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C414	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C415	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C416	VCCCTV1HH470J	J	47p	50V	Ceramic	AA
C417	VCCCTV1HH470J	J	47p	50V	Ceramic	AA
C418	VCCCTV1HH470J	J	47p	50V	Ceramic	AA
C419	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C420	VCE9PF1CW106M	J	10	16V	Elect. (N.P)	AC
C421	VCE9PF1CW106M	J	10	16V	Elect. (N.P)	AC
C422	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C426	VCE9PF1HW225M	J	2.2	50V	Elect. (N.P)	AC
C427	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C428	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C429	VCEAGA1CW107M	J	100	16V	Electrolytic	AB
C430	VCCCTV1HH120J	J	12p	50V	Ceramic	AA
C431	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C432	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C433	VCE9PF1HW105M	J	1	50V	Elect. (N.P)	AC

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SUB UNIT (Continued)

CAPACITORS (Continued)

Ref. No.	Part No.	★	Description			Code
C434	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C435	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C436	VCFYHA1HA152J	J	1500p	50V	M. Polyester	AA
C437	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C438	VCCCTV1HH330J	J	33p	50V	Ceramic	AA
C439	VCE9PF1HW105M	J	1	50V	Elect. (N.P)	AC
C440	VCEAGA1CW107M	J	100	16V	Electrolytic	AB
C441	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C442	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C443	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C444	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C445	VCE9PF1CW106M	J	10	16V	Elect. (N.P)	AC
C446	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C447	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C448	VCEAPF1HW225M	J	2.2	50V	Electrolytic	AB
C449	VCEAPF1HW225M	J	2.2	50V	Electrolytic	AB
C450	VCEAGA1CW107M	J	100	16V	Electrolytic	AB
C451	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C452	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C454	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C455	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C456	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C458	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C459	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C460	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C461	VCCCTV1HH331J	J	330p	50V	Ceramic	AA
C463	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C464	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C465	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C467	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C501	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C601	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C602	VCCCTV1HH151J	J	150p	50V	Ceramic	AA
C608	VCCCTV1HH101J	J	100p	50V	Ceramic	AA
C609	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C610	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C612	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C614	VCCCTV1HH561J	J	560p	50V	Ceramic	AA
C616	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C801	VCCCTV1HH220J	J	22p	50V	Ceramic	AA
C802	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C803	VCKYTV1HF273Z	J	0.027	50V	Ceramic	AB
C804	VCCCTV1HH221J	J	220p	50V	Ceramic	AA
C806	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C807	VCCCTV1HH270J	J	27p	50V	Ceramic	AA
C808	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C809	VCE9PF1HW105M	J	1	50V	Elect. (N.P)	AC
C810	VCKYTV1HF273Z	J	0.027	50V	Ceramic	AB
C811	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C812	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C813	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA

CAPACITORS (Continued)

Ref. No.	Part No.	★	Description			Code
C814	VCCCTV1HH180J	J	18p	50V	Ceramic	AA
C815	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C816	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C817	VCEAPF0JW107M	J	100	6.3V	Electrolytic	AC
C818	VCCCTV1HH390J	J	39p	50V	Ceramic	AA
C819	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C820	VCCCTV1HH101J	J	100	50V	Ceramic	AA
C821	VCCCTV1HH101J	J	100	50V	Ceramic	AA
C822	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C823	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C824	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C825	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C826	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C827	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C828	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C829	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C830	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C831	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C832	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C833	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C834	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C835	VCKYTV1HF223Z	J	0.022	50V	Ceramic	AA
C836	VCEAPF1HW225M	J	2.2	50V	Electrolytic	AB
C837	VCCCTV1HH471J	J	470p	50V	Ceramic	AA
C838	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C839	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C840	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C841	VCCCTV1HH100D	J	10p	50V	Ceramic	AA
C842	VCKYTV1HF273Z	J	0.027	50V	Ceramic	AB
C843	VCCCTV1HH6R0D	J	6p	50V	Ceramic	AA
C844	VCCCTV1HH5R6C	J	5.6	50V	Ceramic	AA
C845	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C846	VCKYTV1HF223Z	J	0.022	50V	Ceramic	AA
C847	VCCCTV1HH151J	J	150p	50V	Ceramic	AA
C848	VCCCTV1HH151J	J	150p	50V	Ceramic	AA
C849	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C850	VCEAPF1HW474M	J	0.47	50V	Electrolytic	AB
C851	VCE9PF1HW105M	J	1	50V	Elect. (N.P)	AC
C852	VCEAPF1HW474M	J	0.47	50V	Electrolytic	AB
C853	VCE9PF1HW105M	J	1	50V	Elect. (N.P)	AC
C854	VCFYHA1HA474J	J	0.47	50V	M. Polyester	AD
C855	VCFYHA1HA474J	J	0.47	50V	M. Polyester	AD
C856	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C857	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C858	VCE9PF1HW105M	J	1	50V	Elect. (N.P)	AC
C859	VCE9PF1HW105M	J	1	50V	Elect. (N.P)	AC
C860	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C861	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C862	VCEAPF1HW106M	J	10	50V	Electrolytic	AB
C863	VCEAPF1HW106M	J	10	50V	Electrolytic	AB
C864	VCEAPF1HW106M	J	10	50V	Electrolytic	AB
C865	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C866	VCEAGA1CW107M	J	100	16V	Electrolytic	AB
C867	VCEAPF1HW105M	J	1	50V	Electrolytic	AB

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SUB UNIT (Continued)

CAPACITORS (Continued)

Ref. No.	Part No.	★	Description			Code
C868	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C869	VCEAPF1HW474M	J	0.47	50V	Electrolytic	AB
C870	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C871	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C872	VCEAPF1HW474M	J	0.47	50V	Electrolytic	AB
C873	VCEAPF1HW474M	J	0.47	50V	Electrolytic	AB
C874	VCEAPF1HW474M	J	0.47	50V	Electrolytic	AB
C876	VCEAPF1EW475M	J	4.7	25V	Electrolytic	AB
C877	VCEAPF1HW104M	J	0.1	50V	Electrolytic	AB
C878	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C879	VCEAPF1HW474M	J	0.47	50V	Electrolytic	AB
C880	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C881	VCEAPF1HW474M	J	0.47	50V	Electrolytic	AB
C882	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C883	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C884	VCCCTV1HH470J	J	47p	50V	Ceramic	AA
C885	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C886	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C887	VCCCTV1HH271J	J	270p	50V	Ceramic	AA
C888	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C889	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1420	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C1421	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C1422	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C1423	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C1424	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C1425	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C1452	VCEAPF1HW106M	J	10	50V	Electrolytic	AB
C1453	VCEAPF1HW106M	J	10	50V	Electrolytic	AB
C1454	VCEAPF1HW106M	J	10	50V	Electrolytic	AB
C4001	VCEAGA1CW107M	J	100	16V	Electrolytic	AB
C4002	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C4003	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C4004	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C4005	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C4006	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C4007	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C4008	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C4009	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C4010	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C4011	VCFYHA1HA473J	J	0.047	50V	M. Polyester	AB
C4012	VCEAGA1HW225M	J	2.2	50V	Electrolytic	AB
C4013	VCCCTV1HH120J	J	12p	50V	Ceramic	AA
C4014	VCCCTV1HH120J	J	12p	50V	Ceramic	AA
C4015	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C4016	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C4017	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C4018	VCFYHA1HA473J	J	0.047	50V	M. Polyester	AB
C4019	VCFYHA1HA105J	J	1	50V	M. Polyester	AE
C4020	VCKYTV1HB472K	J	4700p	50V	Ceramic	AA
C4021	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB

CAPACITORS (Continued)

Ref. No.	Part No.	★	Description			Code
C4022	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C4023	VCEAPF1AW476M	J	47	10V	Electrolytic	AB
C4024	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C4025	VCEAPF1AW476M	J	47	10V	Electrolytic	AB
C4026	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C4027	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C4028	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C4029	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C4030	VCKYTV1HF473Z	J	0.047	50V	Ceramic	AB
C4031	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C4032	VCEAPF1AW476M	J	47	10V	Electrolytic	AB
C4033	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C4034	VCEAPF1AW476M	J	47	10V	Electrolytic	AB
C4036	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C4037	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C4043	VCCCTV1HH220J	J	22p	50V	Ceramic	AA
C4044	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C4045	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C4046	VCEAPF1HW225M	J	2.2	50V	Electrolytic	AB
C4047	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C4048	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C4049	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C4050	RTO-H1039GEZZ	J	Trimmer Capacitor			AC
C4051	RTO-H1039GEZZ	J	Trimmer Capacitor			AC
C4052	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C4053	VCCCTV1HH101J	J	100p	50V	Ceramic	AA
C4054	VCCCTV1HH101J	J	100p	50V	Ceramic	AA
C4055	VCCCTV1HH150J	J	15p	50V	Ceramic	AA
C4056	VCCCTV1HH470J	J	47p	50V	Ceramic	AA
C4057	VCCCTV1HH270J	J	27p	50V	Ceramic	AA
C4058	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C4059	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C4060	VCEAGA1CW107M	J	100	16V	Electrolytic	AB
C4061	VCCCTV1HH270J	J	27p	50V	Ceramic	AA
C4062	VCCCTV1HH560J	J	56p	50V	Ceramic	AA

RESISTORS

R101	VRS-TV1JD393J	J	39k	1/16W	Metal Oxide	AA
R102	VRS-TV1JD105J	J	1M	1/16W	Metal Oxide	AA
R103	VRS-TV1JD393J	J	39k	1/16W	Metal Oxide	AA
R104	VRS-TV1JD105J	J	1M	1/16W	Metal Oxide	AA
R105	VRS-TV1JD393J	J	39k	1/16W	Metal Oxide	AA
R106	VRS-TV1JD105J	J	1M	1/16W	Metal Oxide	AA
R107	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R108	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R109	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R110	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R401	VRS-TW2ED750J	J	75	1/4W	Metal Oxide	AA
R402	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R403	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R404	VRS-TW2ED750J	J	75	1/4W	Metal Oxide	AA

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SUB UNIT (Continued)

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R405	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R406	VRS-TW2ED750J	J	75 1/4W Metal Oxide	AA
R407	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R408	VRS-TW2ED750J	J	75 1/4W Metal Oxide	AA
R409	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R410	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R411	VRS-TV1JD560J	J	56 1/16W Metal Oxide	AA
R412	VRS-TV1JD220J	J	22 1/16W Metal Oxide	AA
R413	VRS-TV1JD560J	J	56 1/16W Metal Oxide	AA
R414	VRS-TV1JD150J	J	15 1/16W Metal Oxide	AA
R415	VRS-TV1JD560J	J	56 1/16W Metal Oxide	AA
R416	VRS-TV1JD150J	J	15 1/16W Metal Oxide	AA
R418	VRS-TW2ED750J	J	75 1/4W Metal Oxide	AA
R419	VRS-TV1JD333J	J	33k 1/16W Metal Oxide	AA
R420	VRS-TV1JD333J	J	33k 1/16W Metal Oxide	AA
R421	VRS-TV1JD471J	J	470 1/16W Metal Oxide	AA
R423	VRS-TV1JD223J	J	22k 1/16W Metal Oxide	AA
R424	VRS-TV1JD223J	J	22k 1/16W Metal Oxide	AA
R425	VRS-TV1JD182J	J	1.8k 1/16W Metal Oxide	AA
R428	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R429	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R430	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R431	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R432	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R433	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R434	VRS-TV1JD104J	J	100k 1/16W Metal Oxide	AA
R435	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R436	VRS-TV1JD182J	J	1.8k 1/16W Metal Oxide	AA
R437	VRS-TV1JD122J	J	1.2k 1/16W Metal Oxide	AA
R438	VRS-TW2ED821J	J	820 1/4W Metal Oxide	AA
R439	VRS-TV1JD823J	J	82k 1/16W Metal Oxide	AA
R440	VRS-TV1JD823J	J	82k 1/16W Metal Oxide	AA
R441	VRS-TV1JD224J	J	220k 1/16W Metal Oxide	AA
R442	VRS-TV1JD563J	J	56k 1/16W Metal Oxide	AA
R443	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R444	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R445	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R446	VRS-TV1JD682J	J	6.8k 1/16W Metal Oxide	AA
R447	VRS-TV1JD562J	J	5.6k 1/16W Metal Oxide	AA
R448	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R449	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R450	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R451	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R452	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R453	VRS-TV1JD274J	J	270k 1/16W Metal Oxide	AA
R454	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R455	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R456	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R457	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R458	VRS-TV1JD471J	J	470 1/16W Metal Oxide	AA
R459	VRS-TV1JD154J	J	150k 1/16W Metal Oxide	AA

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R460	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R461	VRS-TV1JD182J	J	1.8k 1/16W Metal Oxide	AA
R462	VRS-TV1JD152J	J	1.5k 1/16W Metal Oxide	AA
R463	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R464	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R465	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R466	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R467	VRS-TV1JD271J	J	270 1/16W Metal Oxide	AA
R468	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R469	VRS-TV1JD561J	J	560 1/16W Metal Oxide	AA
R470	VRS-TV1JD333J	J	33k 1/16W Metal Oxide	AA
R471	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R472	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R473	VRS-TV1JD561J	J	560 1/16W Metal Oxide	AA
R474	VRS-TV1JD562J	J	5.6k 1/16W Metal Oxide	AA
R475	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R476	VRS-TV1JD000J	J	0 1/16W Metal Oxide	AA
R478	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R479	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R480	VRS-TV1JD1R0J	J	1 1/16W Metal Oxide	AA
R481	VRS-TV1JD822J	J	8.2k 1/16W Metal Oxide	AA
R482	VRS-TV1JD822J	J	8.2k 1/16W Metal Oxide	AA
R483	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R484	VRS-TV1JD561J	J	560 1/16W Metal Oxide	AA
R485	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R486	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R487	*See Controls*			
R488	VRS-TV1JD561J	J	560 1/16W Metal Oxide	AA
R489	VRS-TV1JD561J	J	560 1/16W Metal Oxide	AA
R490	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R491	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R492	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R494	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R495	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R496	VRS-TV1JD151J	J	150 1/16W Metal Oxide	AA
R497	VRS-TV1JD271J	J	270 1/16W Metal Oxide	AA
R498	VRS-TV1JD221J	J	220 1/16W Metal Oxide	AA
R499	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R503	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R505	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R601	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R602	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R603	VRS-TV1JD562J	J	5.6k 1/16W Metal Oxide	AA
R604	VRS-TV1JD562J	J	5.6k 1/16W Metal Oxide	AA
R614	*See Controls*			
R615	VRS-TV1JD332J	J	3.3k 1/16W Metal Oxide	AA
R616	VRS-TV1JD562J	J	5.6k 1/16W Metal Oxide	AA
R617	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R619	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R623	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R624	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R625	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R801	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R802	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code

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SUB UNIT (Continued)

RESISTORS (Continued)

R803	VRS-TV1JD560J	J	56 1/16W Metal Oxide	AA
R804	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R805	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R806	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R807	VRS-TV1JD225J	J	2.2M 1/16W Metal Oxide	AA
R808	VRS-TV1JD223J	J	22k 1/16W Metal Oxide	AA
R809	VRS-TV1JD223J	J	22k 1/16W Metal Oxide	AA
R810	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R811	VRS-TV1JD471J	J	470 1/16W Metal Oxide	AA
R812	*See Controls*			
R813	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R814	VRS-TV1JD821J	J	820 1/16W Metal Oxide	AA
R816	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R817	*See Controls*			
R818	VRS-TV1JD681J	J	680 1/16W Metal Oxide	AB
R819	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R820	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R823	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R825	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R826	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R827	VRS-TV1JD124J	J	120k 1/16W Metal Oxide	AA
R828	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R829	VRS-TV1JD332J	J	3.3k 1/16W Metal Oxide	AA
R830	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R831	VRS-TV1JD272J	J	2.7k 1/16W Metal Oxide	AA
R832	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R833	VRS-TV1JD225J	J	2.2M 1/16W Metal Oxide	AA
R834	VRS-TV1JD391J	J	390 1/16W Metal Oxide	AA
R835	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R836	VRS-TV1JD391J	J	390 1/16W Metal Oxide	AA
R837	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R838	VRS-TV1JD475J	J	4.7M 1/16W Metal Oxide	AA
R839	VRS-TV1JD562J	J	5.6k 1/16W Metal Oxide	AA
R840	VRS-TV1JD123J	J	12k 1/16W Metal Oxide	AA
R841	VRS-TV1JD000J	J	0 1/16W Metal Oxide	AA
R842	VRS-TV1JD000J	J	0 1/16W Metal Oxide	AA
R843	VRS-TV1JD223J	J	22k 1/16W Metal Oxide	AA
R844	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R845	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R846	VRS-TV1JD152J	J	1.5k 1/16W Metal Oxide	AA
R847	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R848	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R849	VRS-TV1JD223J	J	22k 1/16W Metal Oxide	AA
R850	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R851	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R852	VRS-TV1JD152J	J	1.5k 1/16W Metal Oxide	AA
R853	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R854	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R855	VRS-TV1JD223J	J	22k 1/16W Metal Oxide	AA
R856	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R857	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R858	VRS-TV1JD152J	J	1.5k 1/16W Metal Oxide	AA
R859	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R860	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R861	VRS-TV1JD820J	J	82 1/16W Metal Oxide	AA
R862	VRS-TV1JD000J	J	0 1/16W Metal Oxide	AA
R863	VRS-TV1JD272J	J	2.7k 1/16W Metal Oxide	AA
R865	VRS-TV1JD223J	J	22k 1/16W Metal Oxide	AA
R867	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R868	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R869	VRS-TV1JD223J	J	22k 1/16W Metal Oxide	AA
R870	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R871	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R872	VRS-TV1JD273J	J	27k 1/16W Metal Oxide	AA
R873	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R874	VRS-TV1JD395J	J	3.9M 1/16W Metal Oxide	AA
R875	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R876	VRS-TV1JD273J	J	27k 1/16W Metal Oxide	AA
R877	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R878	*See Controls*			
R880	VRS-TV1JD683J	J	68k 1/16W Metal Oxide	AA
R881	VRS-TV1JD393J	J	39k 1/16W Metal Oxide	AA
R882	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R883	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R885	VRS-TV1JD333J	J	33k 1/16W Metal Oxide	AA
R886	VRS-TV1JD1R0J	J	1 1/16W Metal Oxide	AA
R887	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R888	VRS-TV1JD182J	J	1.8k 1/16W Metal Oxide	AA
R889	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R890	*See Controls*			
R891	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R892	VRS-TV1JD750J	J	75 1/16W Metal Oxide	AA
R894	VRS-TV1JD225J	J	2.2M 1/16W Metal Oxide	AA
R895	VRS-TV1JD471J	J	470 1/16W Metal Oxide	AA
R896	VRS-TV1JD182J	J	1.8k 1/16W Metal Oxide	AA
R897	VRS-TV1JD182J	J	1.8k 1/16W Metal Oxide	AA
R898	VRS-TV1JD182J	J	1.8k 1/16W Metal Oxide	AA
R899	VRS-TV1JD182J	J	1.8k 1/16W Metal Oxide	AA
R1301	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1302	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R1303	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R1304	VRS-TV1JD152J	J	1.5k 1/16W Metal Oxide	AA
R1305	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1306	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R1307	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R1308	VRS-TV1JD152J	J	1.5k 1/16W Metal Oxide	AA
R1309	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1310	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R1311	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R1312	VRS-TV1JD152J	J	1.5k 1/16W Metal Oxide	AA
R1313	VRS-TV1JD122J	J	1.2k 1/16W Metal Oxide	AA
R1314	VRS-TV1JD821J	J	820 1/16W Metal Oxide	AA
R1315	VRS-TV1JD122J	J	1.2k 1/16W Metal Oxide	AA
R1316	VRS-TV1JD821J	J	820 1/16W Metal Oxide	AA
R1317	VRS-TV1JD122J	J	1.2k 1/16W Metal Oxide	AA

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SUB UNIT (Continued)

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R1318	VRS-TV1JD821J	J	820 1/16W Metal Oxide	AA
R1419	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R1420	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R1421	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R1422	VRS-TV1JD562J	J	5.6k 1/16W Metal Oxide	AA
R1423	VRS-TV1JD562J	J	5.6k 1/16W Metal Oxide	AA
R1424	VRS-TV1JD562J	J	5.6k 1/16W Metal Oxide	AA
R1426	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R1428	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R1430	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R1431	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R1432	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R1434	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R1435	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R1437	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R1438	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R1440	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1441	*See Controls*			
R1442	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1443	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R1444	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R1445	*See Controls*			
R4001	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R4002	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R4003	VRS-TV1JD822J	J	8.2k 1/16W Metal Oxide	AA
R4004	VRS-TV1JD471J	J	470 1/16W Metal Oxide	AA
R4005	VRS-TV1JD682J	J	6.8k 1/16W Metal Oxide	AA
R4006	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R4007	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R4010	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R4037	*See Controls*			
R4038	VRS-TV1JD122J	J	1.2k 1/16W Metal Oxide	AA
R4039	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R4040	VRS-TV1JD684J	J	680k 1/16W Metal Oxide	AA
R4048	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R4049	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R4050	VRS-TV1JD332J	J	3.3k 1/16W Metal Oxide	AA
R4051	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R4052	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R4053	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R4054	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R4055	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R4056	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R4057	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R4058	VRS-TV1JD331J	J	330 1/16W Metal Oxide	AA
R4059	*See Controls*			
R4060	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R4061	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R4062	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R4063	VRS-TV1JD822J	J	8.2k 1/16W Metal Oxide	AA
R4064	VRS-TV1JD222J	J	2.2k 1/16W Metal Oxide	AA
R4065	VRS-TV1JD224J	J	220k 1/16W Metal Oxide	AA
R4071	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R4072	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R4073	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R4074	VRS-TV1JD000J	J	0 1/16W Metal Oxide	AA
R4075	VRS-TV1JD000J	J	0 1/16W Metal Oxide	AA
R4077	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R4078	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R4080	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R4081	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R4082	VRS-TV1JD182J	J	1.8k 1/16W Metal Oxide	AA
R4083	VRS-TV1JD122J	J	1.2k 1/16W Metal Oxide	AA
R4084	VRS-TV1JD151J	J	150 1/16W Metal Oxide	AA
R4085	VRS-TV1JD273J	J	27k 1/16W Metal Oxide	AA
R4086	VRS-TV1JD822J	J	8.2k 1/16W Metal Oxide	AA
R4089	VRS-TV1JD471J	J	470 1/16W Metal Oxide	AA
R4090	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R4091	VRS-TV1JD182J	J	1.8k 1/16W Metal Oxide	AA
R4092	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R4093	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R4094	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R4096	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R4097	VRS-TV1JD152J	J	1.5k 1/16W Metal Oxide	AA
R4098	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R4099	VRS-TV1JD152J	J	1.5k 1/16W Metal Oxide	AA
R4100	VRS-TV1JD221J	J	220 1/16W Metal Oxide	AA
R8801	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R8802	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA

MISCELLANEOUS PARTS

FB4001	RBLN-0060CEZZ	J	Ferrite Bead	AC
FB4002	RBLN-0060CEZZ	J	Ferrite Bead	AC
FB4003	RBLN-0060CEZZ	J	Ferrite Bead	AC
FB4004	RBLN-0060CEZZ	J	Ferrite Bead	AC
FB4005	RBLN-0060CEZZ	J	Ferrite Bead	AC
FB4006	RBLN-0060CEZZ	J	Ferrite Bead	AC
J101	QJAKF0023CEZZ	J	Jack, Video	AD
J103	QJAKE0052CEZZ	J	Jack, RGB	AB
J401	QTANN0836CEZZ	J	Terminal, Video, RGB, H/V Sync.	AU
J403	QSOCD0408CEZZ	J	Socket, S-Video	AG
J408	QJAKE0008TAZZ	J	Jack, DC 12V Output	AE
J409	QJAKJ0044CEZZ	J	Jack, Wired R/C	AF
	QPLGN0278GEZZ	J	Plug 2-pin, (SA)	AA
	QPLGN0378GEZZ	J	Plug 3-pin, (MB2), (MF)	AB
	QPLGN0478GEZZ	J	Plug 4-pin, (DB), (ED), (RB)	AB
	QPLGN0578GEZZ	J	Plug 5-pin, (MB)	AB
	QPLGN0678GEZZ	J	Plug 6-pin, (DA), (DC)	AB
	QPLGN0878GEZZ	J	Plug 8-pin, (MA), (MC)	AC

End of SUB UNIT

Ref. No.	Part No.	★	Description	Code

DUNTK8068DE01
AC INPUT UNIT

COIL

⚠L771	RCiLF0253CEZZ	J	Line Filter	AR
⚠L772	RCiLF0253CEZZ	J	Line Filter	AR

CAPACITOR

⚠C771	RC-FZ001SCEZZ	J	Special	AG

SWITCH

⚠S771	QSW-P0566CEZZ	J	AC Switch	AL

MISCELLANEOUS PARTS

⚠F771	QFS-C5023CEZZ	J	Fuse, T5AH, 250V	AD
FH771	QFSHD1002CEZZ	J	Fuse Holder	AA
FH772	QFSHD1002CEZZ	J	Fuse Holder	AA
	QPLGN0270GEZZ	J	Plug 2-pin, (AC), (PE)	AA

—— End of AC INPUT UNIT ——

DUNTK8069DE01
CONTROL SWITCH UNIT

SWITCHES

S2301	QSW-K0030CEZZ	J	Input Select	AB
S2302	QSW-K0030CEZZ	J	System	AB
S2303	QSW-K0030CEZZ	J	Focus <	AB
S2304	QSW-K0030CEZZ	J	Focus >	AB
S2305	QSW-K0030CEZZ	J	Zoom (Tele)	AB
S2306	QSW-K0030CEZZ	J	Zoom (Wide)	AB
S2307	QSW-K0030CEZZ	J	Volume (Down)	AB
S2308	QSW-K0030CEZZ	J	Volume (Up)	AB
S2309	QSW-K0030CEZZ	J	Mode (Down)	AB
S2310	QSW-K0030CEZZ	J	Mode (Select)	AB
S2311	QSW-K0030CEZZ	J	Mode (Up)	AB
S2312	QSW-K0030CEZZ	J	Blue Screen	AB

MISCELLANEOUS PART

	QPLGN0980GEZZ	J	Plug 9-pin, (CS)	AC

—— End of CONTROL UNIT ——

Ref. No.	Part No.	★	Description	Code

DUNTK8070DE01
LED UNIT

DIODES

D2302	RH-PX0294CEZZ	J	LED, Red/Green, Power	AC
D2303	RH-PX0294CEZZ	J	LED, Red/Green, Lamp	AC
D2304	RH-PX0303CEZZ	J	LED, Temp.	AB

MISCELLANEOUS PARTS

	LHLDZ1721CEZZ	J	LED Holder	AE
	QPLGN0680GEZZ	J	Plug 6-pin, (LE)	AB

—— End of LED UNIT ——

DUNTK8071DE01
R/C RECEIVER UNIT

DIODE

D2301	RH-EX0624CEZZ	J	Zener Diode	AB

CAPACITOR

C2301	VCEAPF0JW107M	J	100 6.3V Electrolytic	AC

RESISTOR

R2301	VRS-TV1JD220J	J	22p 1/16W Metal Oxide	AA

SWITCH

S2313	QSW-P0577CEZZ	J	ON-OFF	AE

MISCELLANEOUS PARTS

RMC2301	RRMCU0196CEZZ	J	Remote Control Receiver AM	
	QPLGN0778GEZZ	J	Plug 7-pin, (GR)	

—— End of R/C RECEIVER UNIT ——

Ref. No.	Part No.	★	Description	Code

DUNTK8072DE01
INVERSE UNIT

DIODE

D2305	RH-PX0181GEZZ	J	LED, GP2S24BC	AE

CAPACITOR

C2302	VCKYTV1EF104Z	J	0.1	25V	Ceramic		AA

RESISTORS

R2302	VRS-TV1JD563J	J	56k	1/16W	Metal Oxide		AA
R2303	VRS-TW2ED271J	J	270	1/4W	Metal Oxide		AA

MISCELLANEOUS PARTS

	LHLDZ1730CEZZ	J	LED Holder	AC
	QPLGN0378GEZZ	J	Plug 3-pin, (UD)	AB

—— End of INVERSE UNIT ——

DUNTK8073DE01
LCD CONTROL-1 UNIT

INTEGRATED CIRCUITS

IC1600	VHiLM6361M/-1	J		AR
IC1601	VHiLM6361M/-1	J		AR
IC1602	VHiLM6361M/-1	J		AR
IC1603	VHiLM6361M/-1	J		AR
IC1604	VHiLM6361M/-1	J		AR
IC1605	VHiLM6361M/-1	J		AR
IC1606	VHiNJM2904M-1	J		AE
IC5510	VHiLM1203N/-1	J		AW
IC5511	VHiLM1203N/-1	J		AW
IC5512	VHiSNHC86NS-1	J		AE
IC5513	VHiNJM2904M-1	J		AE
IC6001	RH-iX2145CEZZ	J	LZ93F34	AT
IC6002	VHiNJM2107F-1	J		AE
IC6003	VHiTC7W32F/-1	J		AE
IC6004	VHiTC7W04F/-1	J		AD
IC6005	VHiTC7W04F/-1	J		AD
IC6006	VHiTC7S02F/-1	J		AC
IC6007	VHiSNHC74NS-1	J		AD
IC6008	VHiTC7S86F/-1	J		AD
IC6009	VHiTC4W53F/-1	J		AE
IC6010	RH-iX2276CEZZ	J	SN74LS157NS	AE
IC6011	VHiLM6321//-1	J		AQ
IC6012	VHiLM6321//-1	J		AQ
IC6013	VHiLM6321//-1	J		AQ
IC6014	VHiTC7W74U/-1	J		AD

Ref. No.	Part No.	★	Description	Code

TRANSISTORS

Q5502	VSBC857B3F/-1	J	BC857B3F	AA
Q5503	VSBC857B3F/-1	J	BC857B3F	AA
Q5504	VSBC847B1F/-1	J	BC847B1F	AA
Q5505	VSBC847B1F/-1	J	BC847B1F	AA
Q5507	VSBC857B3F/-1	J	BC857B3F	AA
Q5508	VSBC857B3F/-1	J	BC857B3F	AA
Q5509	VSBC847B1F/-1	J	BC847B1F	AA
Q5510	VSBC847B1F/-1	J	BC847B1F	AA
Q5512	VSBC857B3F/-1	J	BC857B3F	AA
Q5513	VSBC857B3F/-1	J	BC857B3F	AA
Q5514	VSBC847B1F/-1	J	BC847B1F	AA
Q5515	VSBC847B1F/-1	J	BC847B1F	AA
Q5517	VSBC857B3F/-1	J	BC857B3F	AA
Q5518	VSBC857B3F/-1	J	BC857B3F	AA
Q5519	VSBC847B1F/-1	J	BC847B1F	AA
Q5520	VSBC847B1F/-1	J	BC847B1F	AA
Q5522	VSBC857B3F/-1	J	BC857B3F	AA
Q5523	VSBC857B3F/-1	J	BC857B3F	AA
Q5524	VSBC847B1F/-1	J	BC847B1F	AA
Q5525	VSBC847B1F/-1	J	BC847B1F	AA
Q5527	VSBC857B3F/-1	J	BC857B3F	AA
Q5528	VSBC857B3F/-1	J	BC857B3F	AA
Q5529	VSBC847B1F/-1	J	BC847B1F	AA
Q5530	VSBC847B1F/-1	J	BC847B1F	AA
Q6001	VS2SC2735//1E	J	2SC2735	AC
Q6002	VSBC847B1F/-1	J	BC847B1F	AA
Q6003	VSBC847B1F/-1	J	BC847B1F	AA
Q6004	VSBC847B1F/-1	J	BC847B1F	AA
Q6005	VSBC847B1F/-1	J	BC847B1F	AA
Q6006	VSBC847B1F/-1	J	BC847B1F	AA
Q6007	VSBC847B1F/-1	J	BC847B1F	AA
Q6008	VSBC847B1F/-1	J	BC847B1F	AA
Q6009	VSBC847B1F/-1	J	BC847B1F	AA
Q6010	VSBC847B1F/-1	J	BC847B1F	AA
Q6011	VSDTC144EK/-1	J	DTC144EK	AB

DIODES

D6001	VHD1SV217//-1	J		AB
D6002	RH-EX0649CEZZ	J	Zener Diode	AB
D6003	RH-EX0147CEZZ	J	Zener Diode	

COILS AND TRANSFORMERS

CF6001	RFiLN0097GEZZ	J	Ceramic Filter	AF
CF6020	RFiLN0080GEZZ	J	Ceramic Filter	AD
CF6021	RFiLN0080GEZZ	J	Ceramic Filter	AD
CF6022	RFiLN0080GEZZ	J	Ceramic Filter	AD
CF6023	RFiLN0080GEZZ	J	Ceramic Filter	AD
CF6024	RFiLN0080GEZZ	J	Ceramic Filter	AD
CF6025	RFiLN0080GEZZ	J	Ceramic Filter	AD
CF6026	RFiLN0097GEZZ	J	Ceramic Filter	AF
CF6027	RFiLN0097GEZZ	J	Ceramic Filter	AF

Ref. No.	Part No.	★	Description	Code

DUNTK8073DE01
LCD CONTROL-1 UNIT (Continued)

COILS AND TRANSFORMERS (Continued)

DL6001	RMPTH0006CEZZ	J	Delay Line	AV
DL6002	RMPTH0008CEZZ	J	Delay Line	AV
L6001	RCILB0084CEZZ	J	Oscillation Coil	AF
L6002	VP-MK150K0000	J	Coil, 15μH	AB
L6003	VP-MK150K0000	J	Coil, 15μH	AB
L6004	VP-9N2R2KR36N	J	Coil, 2.2μH	AB

CONTROLS

R1612	RVR-M7901TAZZ	J	10k(B)	H-Position	AC
R1613	RVR-M7901TAZZ	J	10k(B)	H-Position	AC
R1614	RVR-M7901TAZZ	J	10k(B)	H-Position	AC
R5598	RVR-M7892TAZZ	J	330(B)	R-Gain	AC
R5599	RVR-M7892TAZZ	J	330(B)	G-Gain	AC
R5600	RVR-M7892TAZZ	J	330(B)	B-Gain	AC
R5646	RVR-M7901TAZZ	J	10k(B)	H-Position	AC
R5647	RVR-M7901TAZZ	J	10k(B)	H-Position	AC
R5648	RVR-M7901TAZZ	J	10k(B)	H-Position	AC
R6045	RVR-M7901TAZZ	J	10k(B)	H-Position	AC
R6072	RVR-M7899TAZZ	J	4.7k(B)	B-Com.	AC
R6079	RVR-M7899TAZZ	J	4.7k(B)	G-Com.	AC
R6086	RVR-M7899TAZZ	J	4.7k(B)	R-Com.	AC

CAPACITORS

C1603	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1604	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1605	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1606	VCCCTV1HH5R0C	J	5p	50V	Ceramic	AA
C1607	VCCCTV1HH5R0C	J	5p	50V	Ceramic	AA
C1608	VCCCTV1HH5R0C	J	5p	50V	Ceramic	AA
C1609	VCCCTV1HH5R0C	J	5p	50V	Ceramic	AA
C1610	VCCCTV1HH5R0C	J	5p	50V	Ceramic	AA
C1611	VCCCTV1HH5R0C	J	5p	50V	Ceramic	AA
C1671	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C1672	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1673	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA
C1678	VCEAPF1CW476M	J	47	16V	Electrolytic	AB
C1679	VCEAPF1CW476M	J	47	16V	Electrolytic	AB
C5525	VCEAPF1HW106M	J	10	50V	Electrolytic	AB
C5526	VCEAPF1HW106M	J	10	50V	Electrolytic	AB
C5527	VCEAPF1HW106M	J	10	50V	Electrolytic	AB
C5528	VCEAPF1HW106M	J	10	50V	Electrolytic	AB
C5529	VCEAPF1HW106M	J	10	50V	Electrolytic	AB
C5530	VCEAPF1HW106M	J	10	50V	Electrolytic	AB
C5531	VCEAPF1HW474M	J	0.47	50V	Electrolytic	AB
C5532	VCEAPF1HW474M	J	0.47	50V	Electrolytic	AB
C5533	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5534	VCEAPF1HW474M	J	0.47	50V	Electrolytic	AB

Ref. No.	Part No.	★	Description	Code

CAPACITORS (Continued)

C5535	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5536	VCEAPF1HW474M	J	0.47	50V	Electrolytic	AB
C5537	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5538	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5539	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5540	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5541	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5542	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5543	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5544	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5545	VCCCTV1HH5R0C	J	5p	50V	Ceramic	AA
C5546	VCCCTV1HH5R0C	J	5p	50V	Ceramic	AA
C5547	VCCCTV1HH5R0C	J	5p	50V	Ceramic	AA
C5548	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5549	VCEAGA1CW477M	J	470	16V	Electrolytic	AC
C5550	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5551	VCEAPF1HW474M	J	0.47	50V	Electrolytic	AB
C5552	VCEAPF1HW474M	J	0.47	50V	Electrolytic	AB
C5553	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5554	VCEAPF1HW474M	J	0.47	50V	Electrolytic	AB
C5555	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5556	VCEAPF1HW474M	J	0.47	50V	Electrolytic	AB
C5557	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5558	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5559	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5560	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5561	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5562	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5564	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5565	VCCCTV1HH5R0C	J	5p	50V	Ceramic	AA
C5566	VCCCTV1HH5R0C	J	5p	50V	Ceramic	AA
C5567	VCCCTV1HH5R0C	J	5p	50V	Ceramic	AA
C5568	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5569	VCEAGA1CW477M	J	470	16V	Electrolytic	AC
C5570	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5571	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5572	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5573	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5575	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C5576	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5577	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5578	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5579	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C6001	VCEAPK1CN107M	J	100	16V	Electrolytic	AD
C6002	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C6003	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C6004	VCEAPF1CW475M	J	4.7	16V	Electrolytic	AB
C6005	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C6006	VCCCTV1HH561J	J	560p	50V	Ceramic	AA
C6007	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C6008	VCCCTV1HH221J	J	220p	50V	Ceramic	AA
C6009	VCCCTV1HH151J	J	150p	50V	Ceramic	AA
C6010	VCCCTV1HH561J	J	560p	50V	Ceramic	AA
C6011	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB

DUNTK8073DE01
LCD CONTROL-1 UNIT (Continued)

CAPACITORS (Continued)

Ref. No.	Part No.	★	Description			Code
C6012	VCEAGA1CW107M	J	100	16V	Electrolytic	AC
C6013	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C6014	VCCCTV1HH221J	J	220p	50V	Ceramic	AA
C6015	VCCCTV1HH391J	J	390p	50V	Ceramic	AA
C6016	VCCCTV1HH181J	J	180p	50V	Ceramic	AA
C6017	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C6018	VCCCTV1HH470J	J	47p	50V	Ceramic	AA
C6019	VCCCTV1HH100D	J	10p	50V	Ceramic	AA
C6020	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C6021	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C6022	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C6023	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C6024	VCCCTV1HH470J	J	47p	50V	Ceramic	AA
C6025	VCCCTV1HH100D	J	10p	50V	Ceramic	AA
C6026	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C6027	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C6028	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C6029	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C6030	VCCCTV1HH221J	J	220p	50V	Ceramic	AA
C6033	VCEAPF1HW105M	J	1	50	Electrolytic	AB
C6034	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C6043	VCEAPF1HW105M	J	1	50	Electrolytic	AB
C6044	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C6053	VCEAPF1HW105M	J	1	50	Electrolytic	AB
C6054	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C6063	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C6064	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C6065	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C6066	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C6067	VCEAPF1CW476M	J	47	16V	Electrolytic	AC
C6068	VCEAGA1CW227M	J	220	16V	Electrolytic	AC
C6069	VCCCTV1HH270J	J	27p	50V	Ceramic	AA
C6070	VCCCTV1HH270J	J	27p	50V	Ceramic	AA
C6071	VCCCTV1HH270J	J	27p	50V	Ceramic	AA
C6072	VCCCTV1HH270J	J	27p	50V	Ceramic	AA
C6073	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C6074	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C6075	VCCCTV1HH270J	J	27p	50V	Ceramic	AA
C6076	VCCCTV1HH270J	J	27p	50V	Ceramic	AA
C6077	VCCCTV1HH270J	J	27p	50V	Ceramic	AA
C6078	VCCCTV1HH270J	J	27p	50V	Ceramic	AA
C6079	VCCCTV1HH150J	J	15p	50V	Ceramic	AA
C6080	VCCCTV1HH6R0C	J	6p	50V	Ceramic	AA
C6081	VCCCTV1HH391J	J	390p	50V	Ceramic	AA
C6082	VCCCTV1HH391J	J	390p	50V	Ceramic	AA
C6083	VCCCTV1HH180J	J	18p	50V	Ceramic	AA
C6084	VCCCTV1HH391J	J	390p	50V	Ceramic	AA
C6085	VCCCTV1HH391J	J	390p	50V	Ceramic	AA
C6086	VCCCTV1HH271J	J	270p	50V	Ceramic	AA
C6087	VCCCTV1HH271J	J	270p	50V	Ceramic	AA
C6088	VCCCTV1HH271J	J	270p	50V	Ceramic	AA
C6089	VCCCTV1HH271J	J	270p	50V	Ceramic	AA
C6090	VCCCTV1HH271J	J	270p	50V	Ceramic	AA
C6091	VCCCTV1HH271J	J	270p	50V	Ceramic	AA

RESISTORS

Ref. No.	Part No.	★	Description			Code
R1603	VRN-TV1JD122D	J	1.2k	1/16W	Metal Film	AA
R1604	VRN-TV1JD122D	J	1.2k	1/16W	Metal Film	AA
R1605	VRN-TV1JD122D	J	1.2k	1/16W	Metal Film	AA
R1606	VRN-TV1JD122D	J	1.2k	1/16W	Metal Film	AA
R1607	VRN-TV1JD122D	J	1.2k	1/16W	Metal Film	AA
R1608	VRN-TV1JD122D	J	1.2k	1/16W	Metal Film	AA
R1612	*See Controls*					
R1613	*See Controls*					
R1614	*See Controls*					
R1615	VRN-TV1JD122D	J	1.2k	1/16W	Metal Film	AA
R1616	VRN-TV1JD122D	J	1.2k	1/16W	Metal Film	AA
R1617	VRN-TV1JD122D	J	1.2k	1/16W	Metal Film	AA
R1618	VRN-TV1JD122D	J	1.2k	1/16W	Metal Film	AA
R1619	VRN-TV1JD122D	J	1.2k	1/16W	Metal Film	AA
R1620	VRN-TV1JD122D	J	1.2k	1/16W	Metal Film	AA
R1621	VRN-TV1JD122D	J	1.2k	1/16W	Metal Film	AA
R1622	VRN-TV1JD122D	J	1.2k	1/16W	Metal Film	AA
R1623	VRN-TV1JD122D	J	1.2k	1/16W	Metal Film	AA
R1624	VRN-TV1JD122D	J	1.2k	1/16W	Metal Film	AA
R1625	VRN-TV1JD122D	J	1.2k	1/16W	Metal Film	AA
R1626	VRN-TV1JD122D	J	1.2k	1/16W	Metal Film	AA
R1627	VRS-TV1JD182J	J	1.8k	1/16W	Metal Oxide	AA
R1670	VRS-TV1JD153J	J	15k	1/16W	Metal Oxide	AA
R1698	VRS-TV1JD223J	J	22k	1/16W	Metal Oxide	AA
R1699	VRS-TV1JD392J	J	3.9k	1/16W	Metal Oxide	AA
R5508	VRS-TV1JD272J	J	2.7k	1/16W	Metal Oxide	AA
R5511	VRS-TV1JD331J	J	330	1/16W	Metal Oxide	AA
R5512	VRS-TV1JD561J	J	560	1/16W	Metal Oxide	AA
R5513	VRS-TV1JD122J	J	1.2k	1/16W	Metal Oxide	AA
R5515	VRS-TV1JD272J	J	2.7k	1/16W	Metal Oxide	AA
R5518	VRS-TV1JD331J	J	330	1/16W	Metal Oxide	AA
R5519	VRS-TV1JD561J	J	560	1/16W	Metal Oxide	AA
R5520	VRS-TV1JD681J	J	680	1/16W	Metal Oxide	AA
R5522	VRS-TV1JD272J	J	2.7k	1/16W	Metal Oxide	AA
R5525	VRS-TV1JD331J	J	330	1/16W	Metal Oxide	AA
R5526	VRS-TV1JD561J	J	560	1/16W	Metal Oxide	AA
R5527	VRS-TV1JD122J	J	1.2k	1/16W	Metal Oxide	AA
R5529	VRS-TV1JD272J	J	2.7k	1/16W	Metal Oxide	AA
R5532	VRS-TV1JD331J	J	330	1/16W	Metal Oxide	AA
R5533	VRS-TV1JD561J	J	560	1/16W	Metal Oxide	AA
R5534	VRS-TV1JD681J	J	680	1/16W	Metal Oxide	AA
R5536	VRS-TV1JD272J	J	2.7k	1/16W	Metal Oxide	AA
R5539	VRS-TV1JD331J	J	330	1/16W	Metal Oxide	AA
R5540	VRS-TV1JD561J	J	560	1/16W	Metal Oxide	AA
R5541	VRS-TV1JD122J	J	1.2k	1/16W	Metal Oxide	AA
R5543	VRS-TV1JD272J	J	2.7k	1/16W	Metal Oxide	AA

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LCD CONTROL-1 UNIT (Continued)

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R5546	VRS-TV1JD331J	J	330 1/16W Metal Oxide	AA
R5547	VRS-TV1JD561J	J	560 1/16W Metal Oxide	AA
R5548	VRS-TV1JD680J	J	68 1/16W Metal Oxide	AA
R5549	VRS-TV1JD331J	J	330 1/16W Metal Oxide	AA
R5550	VRS-TV1JD391J	J	390 1/16W Metal Oxide	AA
R5551	VRS-TV1JD122J	J	1.2k 1/16W Metal Oxide	AA
R5552	VRS-TV1JD272J	J	2.7k 1/16W Metal Oxide	AA
R5565	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R5566	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R5567	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R5568	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R5569	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R5570	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R5571	VRS-TV1JD221J	J	220 1/16W Metal Oxide	AA
R5572	VRS-TV1JD221J	J	220 1/16W Metal Oxide	AA
R5573	VRS-TV1JD221J	J	220 1/16W Metal Oxide	AA
R5574	VRS-TV1JD221J	J	220 1/16W Metal Oxide	AA
R5575	VRS-TV1JD221J	J	220 1/16W Metal Oxide	AA
R5576	VRS-TV1JD221J	J	220 1/16W Metal Oxide	AA
R5577	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R5578	VRS-TV1JD332J	J	3.3k 1/16W Metal Oxide	AA
R5579	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R5580	VRS-TV1JD332J	J	3.3k 1/16W Metal Oxide	AA
R5581	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R5582	VRS-TV1JD332J	J	3.3k 1/16W Metal Oxide	AA
R5584	VRS-TV1JD153J	J	15k 1/16W Metal Oxide	AA
R5586	VRS-TV1JD153J	J	15k 1/16W Metal Oxide	AA
R5588	VRS-TV1JD153J	J	15k 1/16W Metal Oxide	AA
R5589	VRS-TV1JD820J	J	82 1/16W Metal Oxide	AA
R5590	VRS-TV1JD820J	J	82 1/16W Metal Oxide	AA
R5591	VRS-TV1JD820J	J	82 1/16W Metal Oxide	AA
R5592	VRS-TV1JD470J	J	47 1/16W Metal Oxide	AA
R5593	VRS-TV1JD470J	J	47 1/16W Metal Oxide	AA
R5594	VRS-TV1JD470J	J	47 1/16W Metal Oxide	AA
R5598	*See Controls*			
R5599	*See Controls*			
R5600	*See Controls*			
R5601	VRS-TV1JD223J	J	22k 1/16W Metal Oxide	AA
R5602	VRS-TV1JD223J	J	22k 1/16W Metal Oxide	AA
R5603	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R5604	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R5605	VRS-TV1JD183J	J	18k 1/16W Metal Oxide	AA
R5606	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R5607	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R5608	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R5609	VRS-TV1JD221J	J	220 1/16W Metal Oxide	AA
R5610	VRS-TV1JD100J	J	10 1/16W Metal Oxide	AA
R5611	VRS-TV1JD563J	J	56k 1/16W Metal Oxide	AA
R5612	VRS-TV1JD471J	J	470 1/16W Metal Oxide	AA
R5613	VRS-TV1JD332J	J	3.3k 1/16W Metal Oxide	AA
R5615	VRS-TV1JD122J	J	1.2k 1/16W Metal Oxide	AA
R5616	VRS-TV1JD681J	J	680 1/16W Metal Oxide	AA
R5617	VRS-TV1JD681J	J	680 1/16W Metal Oxide	AA
R5618	VRS-TV1JD681J	J	680 1/16W Metal Oxide	AA
R5619	VRS-TV1JD681J	J	680 1/16W Metal Oxide	AA
R5646	*See Controls*			
R5647	*See Controls*			
R5648	*See Controls*			
R5649	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R5650	VRS-TV1JD223J	J	22k 1/16W Metal Oxide	AA
R5651	VRS-TV1JD562J	J	5.6k 1/16W Metal Oxide	AA
R6001	VRS-TX2HF100J	J	10 1/2W Metal Oxide	AA
R6002	VRS-TV1JD681J	J	680 1/16W Metal Oxide	AA
R6005	VRS-TV1JD000J	J	0 1/16W Metal Oxide	AA
R6006	VRS-TV1JD681J	J	680 1/16W Metal Oxide	AA
R6007	VRS-TV1JD681J	J	680 1/16W Metal Oxide	AA
R6008	VRS-TV1JD681J	J	680 1/16W Metal Oxide	AA
R6009	VRS-TV1JD681J	J	680 1/16W Metal Oxide	AA
R6010	VRS-TV1JD681J	J	680 1/16W Metal Oxide	AA
R6011	VRS-TV1JD681J	J	680 1/16W Metal Oxide	AA
R6012	VRS-TV1JD681J	J	680 1/16W Metal Oxide	AA
R6013	VRS-TV1JD681J	J	680 1/16W Metal Oxide	AA
R6014	VRS-TV1JD681J	J	680 1/16W Metal Oxide	AA
R6015	VRS-TV1JD681J	J	680 1/16W Metal Oxide	AA
R6016	VRS-TV1JD681J	J	680 1/16W Metal Oxide	AA
R6017	VRS-TV1JD681J	J	680 1/16W Metal Oxide	AA
R6018	VRS-TV1JD681J	J	680 1/16W Metal Oxide	AA
R6019	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R6020	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R6021	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R6022	VRS-TV1JD682J	J	6.8k 1/16W Metal Oxide	AA
R6023	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R6024	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R6025	VRS-CR3AD820J	J	82 1W Metal Oxide	AB
R6026	VRS-CR3AD820J	J	82 1W Metal Oxide	AB
R6027	VRS-TV1JD104J	J	100k 1/16W Metal Oxide	AA
R6028	VRS-TV1JD473J	J	47k 1/16W Metal Oxide	AA
R6029	VRS-TV1JD123J	J	12k 1/16W Metal Oxide	AA
R6030	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R6031	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R6032	VRS-TV1JD683J	J	68k 1/16W Metal Oxide	AA
R6033	VRS-TV1JD333J	J	33k 1/16W Metal Oxide	AA
R6034	VRS-TV1JD105J	J	1M 1/16W Metal Oxide	AA
R6035	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R6036	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA
R6037	VRS-TV1JD332J	J	3.3k 1/16W Metal Oxide	AA
R6038	VRS-TV1JD391J	J	390 1/16W Metal Oxide	AA
R6039	VRS-TV1JD181J	J	180 1/16W Metal Oxide	AA
R6040	VRS-TV1JD105J	J	1M 1/16W Metal Oxide	AA
R6044	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R6045	*See Controls*			
R6046	VRS-TV1JD561J	J	560 1/16W Metal Oxide	AA
R6047	VRS-TV1JD272J	J	2.7k 1/16W Metal Oxide	AA
R6048	VRS-TV1JD682J	J	6.8k 1/16W Metal Oxide	AA
R6049	VRS-TV1JD472J	J	4.7k 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code

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LCD CONTROL-1 UNIT (Continued)

RESISTORS (Continued)

R6050	VRS-TV1JD471J	J	470	1/16W Metal Oxide	AA
R6051	VRS-TV1JD471J	J	470	1/16W Metal Oxide	AA
R6052	VRS-TV1JD331J	J	330	1/16W Metal Oxide	AA
R6053	VRS-TV1JD331J	J	330	1/16W Metal Oxide	AA
R6054	VRS-TV1JD331J	J	330	1/16W Metal Oxide	AA
R6055	VRS-TV1JD750J	J	75	1/16W Metal Oxide	AA
R6056	VRS-TV1JD750J	J	75	1/16W Metal Oxide	AA
R6057	VRS-TV1JD750J	J	75	1/16W Metal Oxide	AA
R6058	VRS-TV1JD561J	J	560	1/16W Metal Oxide	AA
R6059	VRS-TV1JD272J	J	2.7k	1/16W Metal Oxide	AA
R6060	VRS-TV1JD682J	J	6.8k	1/16W Metal Oxide	AA
R6061	VRS-TV1JD472J	J	4.7k	1/16W Metal Oxide	AA
R6062	VRS-TV1JD471J	J	470	1/16W Metal Oxide	AA
R6063	VRS-TV1JD471J	J	470	1/16W Metal Oxide	AA
R6064	VRS-TV1JD331J	J	330	1/16W Metal Oxide	AA
R6065	VRS-TV1JD331J	J	330	1/16W Metal Oxide	AA
R6066	VRS-TV1JD331J	J	330	1/16W Metal Oxide	AA
R6067	VRS-TV1JD750J	J	75	1/16W Metal Oxide	AA
R6068	VRS-TV1JD750J	J	75	1/16W Metal Oxide	AA
R6069	VRS-TV1JD750J	J	75	1/16W Metal Oxide	AA
R6070	VRS-TV1JD123J	J	12k	1/16W Metal Oxide	AA
R6071	VRS-TV1JD472J	J	4.7k	1/16W Metal Oxide	AA
R6072	*See Controls*				
R6074	VRS-TV1JD182J	J	1.8k	1/16W Metal Oxide	AA
R6075	VRS-TV1JD223J	J	22k	1/16W Metal Oxide	AA
R6077	VRS-TV1JD123J	J	12k	1/16W Metal Oxide	AA
R6078	VRS-TV1JD472J	J	4.7k	1/16W Metal Oxide	AA
R6079	*See Controls*				
R6082	VRS-TV1JD223J	J	22k	1/16W Metal Oxide	AA
R6084	VRS-TV1JD123J	J	12k	1/16W Metal Oxide	AA
R6085	VRS-TV1JD472J	J	4.7k	1/16W Metal Oxide	AA
R6086	*See Controls*				
R6087	VRS-TV1JD101J	J	100	1/16W Metal Oxide	AA
R6088	VRS-TV1JD101J	J	100	1/16W Metal Oxide	AA
R6089	VRS-TV1JD223J	J	22k	1/16W Metal Oxide	AA
R6091	VRS-TV1JD472J	J	4.7k	1/16W Metal Oxide	AA
R6092	VRS-TV1JD472J	J	4.7k	1/16W Metal Oxide	AA
R6097	VRS-TV1JD101J	J	100	1/16W Metal Oxide	AA
R6100	VRS-TV1JD221J	J	220	1/16W Metal Oxide	AA
R6101	VRS-TV1JD221J	J	220	1/16W Metal Oxide	AA
R6102	VRS-TV1JD221J	J	220	1/16W Metal Oxide	AA
R6103	VRS-TV1JD221J	J	220	1/16W Metal Oxide	AA
R6104	VRS-TV1JD221J	J	220	1/16W Metal Oxide	AA
R6106	VRS-TV1JD221J	J	220	1/16W Metal Oxide	AA
R6107	VRS-TV1JD101J	J	100	1/16W Metal Oxide	AA
R6110	VRS-TV1JD101J	J	100	1/16W Metal Oxide	AA
R6111	VRS-TV1JD151J	J	150	1/16W Metal Oxide	AA
R6112	VRS-TV1JD151J	J	150	1/16W Metal Oxide	AA
R6113	VRS-TV1JD151J	J	150	1/16W Metal Oxide	AA
R6114	VRS-TV1JD151J	J	150	1/16W Metal Oxide	AA
R6115	VRS-TV1JD101J	J	100	1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code

RESISTORS (Continued)

R6116	VRS-TV1JD101J	J	100	1/16W Metal Oxide	AA
R6117	VRS-TV1JD101J	J	100	1/16W Metal Oxide	AA
R6118	VRS-TV1JD472J	J	4.7k	1/16W Metal Oxide	AA
R6119	VRS-TV1JD472J	J	4.7k	1/16W Metal Oxide	AA
R6121	VRS-TV1JD103J	J	10k	1/16W Metal Oxide	AA
R6122	VRS-TV1JD102J	J	1k	1/16W Metal Oxide	AA
R6123	VRS-TV1JD102J	J	1k	1/16W Metal Oxide	AA
R6124	VRS-TV1JD101J	J	100	1/16W Metal Oxide	AA
R6125	VRS-TV1JD472J	J	4.7k	1/16W Metal Oxide	AA
R6126	VRS-TV1JD102J	J	1k	1/16W Metal Oxide	AA
R6127	VRS-TV1JD470J	J	47	1/16W Metal Oxide	AA
R6128	VRS-TV1JD470J	J	47	1/16W Metal Oxide	AA

SWITCHES

S6001	QSW-S0194CEZZ	J		AE
S6002	QSW-S0194CEZZ	J		AE
S6003	QSW-B0015CEZZ	J		AC

MISCELLANEOUS PARTS

FB6005	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB6006	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB6007	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB6008	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB6009	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB6010	RBLN-0065CEZZ	J	Ferrite Bead	AB
	QPLGN0278GEZZ	J	Plug 2-pin, (TP6001, TP6002)	AA
	QPLGN0378GEZZ	J	Plug 3-pin, (HM), (MF)	AB
	QPLGN0478GEZZ	J	Plug 4-pin, (AA), (BI), (GI), (RI)	AB
	QPLGN0578GEZZ	J	Plug 5-pin, (GC)	AB
	QPLGN0678GEZZ	J	Plug 6-pin, (CA), (CF)	AB
	QPLGN0878GEZZ	J	Plug 8-pin, (B)	AC
	QPLGN0978GEZZ	J	Plug 9-pin, (CO)	AC
	QPLGN1278GEZZ	J	Plug 12-pin, (AB), (CB)	AC
	QSOCZ0630GEZZ	J	Socket, 6-pin, (CC), (CD)	AC
	QSOCZ1130GEZZ	J	Socket, 11-pin, (GB)	AC

—— End of CONTROL-1 UNIT ——

Ref. No.	Part No.	★	Description	Code

DUNTK8074DE01
LCD CONTROL-2 UNIT

INTEGRATED CIRCUITS

IC5501	RH-iX2034CEZZ	J	HM63021FP-28	AW
IC5502	RH-iX2034CEZZ	J	HM63021FP-28	AW
IC5503	RH-iX2034CEZZ	J	HM63021FP-28	AW
IC5504	RH-iX2034CEZZ	J	HM63021FP-28	AW
IC5505	RH-iX2034CEZZ	J	HM63021FP-28	AW
IC5506	RH-iX2034CEZZ	J	HM63021FP-28	AW
IC5507	VHiMB40968/-1	J		AS
IC5508	VHiMB40968/-1	J		AS
IC5509	VHiMB40968/-1	J		AS

TRANSISTORS

Q5501	VSBC847B1F/-1	J	BC847B1F	AA
Q5506	VSBC847B1F/-1	J	BC847B1F	AA
Q5511	VSBC847B1F/-1	J	BC847B1F	AA
Q5516	VSBC847B1F/-1	J	BC847B1F	AA
Q5521	VSBC847B1F/-1	J	BC847B1F	AA
Q5526	VSBC847B1F/-1	J	BC847B1F	AA

COILS

CF5503	RFiLN0086GEZZ	J	Ceramic Filter	AN
CF5504	RFiLN0086GEZZ	J	Ceramic Filter	AN
CF5505	RFiLN0086GEZZ	J	Ceramic Filter	AN
CF5506	RFiLN0080GEZZ	J	Ceramic Filter	AD
CF5508	RFiLN0080GEZZ	J	Ceramic Filter	AD

CAPACITORS

C5504	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5505	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5506	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5507	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5508	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5509	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5510	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5511	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5512	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5513	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C5514	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5515	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5516	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5517	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C5518	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5519	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5520	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C5521	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C5580	VCEAGA1CW107M	J	100	16V	Electrolytic	AA

Ref. No.	Part No.	★	Description	Code

RESISTORS

R5501	VRS-TV1JD122J	J	1.2k 1/16W Metal Oxide	AA
R5502	VRS-TV1JD122J	J	1.2k 1/16W Metal Oxide	AA
R5503	VRS-TV1JD122J	J	1.2k 1/16W Metal Oxide	AA
R5504	VRS-TV1JD122J	J	1.2k 1/16W Metal Oxide	AA
R5505	VRS-TV1JD122J	J	1.2k 1/16W Metal Oxide	AA
R5506	VRS-TV1JD122J	J	1.2k 1/16W Metal Oxide	AA
R5507	VRS-TV1JD331J	J	330 1/16W Metal Oxide	AA
R5514	VRS-TV1JD331J	J	330 1/16W Metal Oxide	AA
R5521	VRS-TV1JD331J	J	330 1/16W Metal Oxide	AA
R5528	VRS-TV1JD331J	J	330 1/16W Metal Oxide	AA
R5535	VRS-TV1JD331J	J	330 1/16W Metal Oxide	AA
R5542	VRS-TV1JD331J	J	330 1/16W Metal Oxide	AA
R5558	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R5559	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R5560	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R5561	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R5562	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R5563	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R5564	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R5624	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R5625	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R5626	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R5627	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R5628	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R5629	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R5630	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R5632	RMPTC0170CEZZ	J	Resistor Array	AB
R5633	RMPTC0170CEZZ	J	Resistor Array	AB
R5634	RMPTC0170CEZZ	J	Resistor Array	AB
R5635	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R5636	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R5637	VRS-TV1JD103J	J	10k 1/16W Metal Oxide	AA
R5638	VRS-TV1JD101J	J	100 1/16W Metal Oxide	AA
R5640	VRS-TV1JD331J	J	330 1/16W Metal Oxide	AA
R5641	VRS-TV1JD331J	J	330 1/16W Metal Oxide	AA
R5642	VRS-TV1JD331J	J	330 1/16W Metal Oxide	AA
R5643	VRS-TV1JD331J	J	330 1/16W Metal Oxide	AA
R5644	VRS-TV1JD331J	J	330 1/16W Metal Oxide	AA
R5645	VRS-TV1JD331J	J	330 1/16W Metal Oxide	AA

MISCELLANEOUS PARTS

FB5506	RBLN-0059CEZZ	J	Ferrite Bead	AB
	QPLGN0150FJZZ	J	Plug 60-pin, (VG)	AQ
	QPLGN0378GEZZ	J	Plug 3-pin, (EC), (HM)	AB
	QPLGN0478GEZZ	J	Plug 4-pin, (AA)	AB
	QPLGN0878GEZZ	J	Plug 8-pin, (B)	AC
	QPLGN1278GEZZ	J	Plug 12-pin, (AB)	AC

—— End of CONTROL-2 UNIT ——

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CONVERTER UNIT

INTEGRATED CIRCUITS

Ref. No.	Part No.	★	Description	Code
IC1001	RH-iX2379CEZZ	J	Controller	AY
IC1002	VHiMB40568/-1	J		AW
IC1003	VHiMB40568/-1	J		AW
IC1004	VHiMB40568/-1	J		AW
IC1005	RH-iX2063CEZZ	J	UPD42102G-3	AV
IC1006	RH-iX2063CEZZ	J	UPD42102G-3	AV
IC1007	RH-iX2063CEZZ	J	UPD42102G-3	AV
IC1008	VHiTC7S04F/-1	J		AC
IC1009	VHiNJM2107F-1	J	OP Amp.	AE
IC1010	RH-iX0143TAZZ	J	UPC662GH-2A5	AU

TRANSISTORS

Ref. No.	Part No.	★	Description	Code
Q1001	VSBC847B1F/-1	J	BC847B1F	AA
Q1002	VSBC847B1F/-1	J	BC847B1F	AA
Q1003	VSBC847B1F/-1	J	BC847B1F	AA
Q1004	VSBC857B3F/-1	J	BC857B3F	AA
Q1005	VSBC847B1F/-1	J	BC847B1F	AA
Q1006	VSBC847B1F/-1	J	BC847B1F	AA
Q1007	VSBC847B1F/-1	J	BC847B1F	AA
Q1008	VSBC857B3F/-1	J	BC857B3F	AA
Q1009	VSBC847B1F/-1	J	BC847B1F	AA
Q1010	VSBC847B1F/-1	J	BC847B1F	AA
Q1011	VSBC847B1F/-1	J	BC847B1F	AA
Q1012	VSBC857B3F/-1	J	BC857B3F	AA
Q1013	VSBC847B1F/-1	J	BC847B1F	AA
Q1014	VSBC857B3F/-1	J	BC857B3F	AA
Q1015	VSBC847B1F/-1	J	BC847B1F	AA
Q1016	VSBC847B1F/-1	J	BC847B1F	AA
Q1017	VSBC847B1F/-1	J	BC847B1F	AA
Q1018	VSBC857B3F/-1	J	BC857B3F	AA
Q1019	VSBC847B1F/-1	J	BC847B1F	AA
Q1020	VSBC847B1F/-1	J	BC847B1F	AA
Q1021	VSBC847B1F/-1	J	BC847B1F	AA
Q1022	VSBC857B3F/-1	J	BC857B3F	AA
Q1023	VSBC847B1F/-1	J	BC847B1F	AA
Q1024	VSBC847B1F/-1	J	BC847B1F	AA
Q1025	VSBC857B3F/-1	J	BC857B3F	AA

DIODES

Ref. No.	Part No.	★	Description	Code
D1004	RH-EX0515CEZZ	J	Zener Diode, 5.1V	AB
D1005	VHD1SV217//-1	J		AB

COILS

Ref. No.	Part No.	★	Description	Code
FL1004	RCiLF0214CEZZ	J	Filter	AF
FL1005	RCiLF0214CEZZ	J	Filter	AF

COILS (Continued)

Ref. No.	Part No.	★	Description	Code
FL1006	RCiLF0214CEZZ	J	Filter	AF
FL1010	RFiLN0080GEZZ	J	Filter	AD
FL1011	RFiLN0080GEZZ	J	Filter	AD
FL1013	RFiLN0080GEZZ	J	Filter	AD
FL1014	RFiLN0080GEZZ	J	Filter	AD
FL1015	RFiLN0080GEZZ	J	Filter	AD
L1001	RCiLB0065CEZZ	J	Coil, VCO1 Adj.	AG
L1002	VP-1M3R3JR93N	J	Coil, 3.3μH	AB

CONTROL

Ref. No.	Part No.	★	Description	Code
R1128	RVR-M7901TAZZ	J	10k(B) PAL Y-Level	AC

CAPACITORS

Ref. No.	Part No.	★				Code
C1001	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C1002	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C1003	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C1004	VCE9PF1CW475M	J	4.7	16V	Elect, (N.P)	AC
C1005	VCE9PF1CW475M	J	4.7	16V	Elect, (N.P)	AC
C1006	VCE9PF1CW475M	J	4.7	16V	Elect, (N.P)	AC
C1007	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C1008	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C1009	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C1010	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1011	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1012	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1013	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1014	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1015	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1016	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1017	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1018	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1019	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1020	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1021	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1022	VCKYTV1HB102K	J	1000p	50V	Ceramic	AA
C1023	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1024	VCCCTV1HH101J	J	100p	50V	Ceramic	AA
C1025	VCCCTV1HH561J	J	560p	50V	Ceramic	AA
C1026	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1027	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C1028	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1029	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1030	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C1031	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1032	VCEAPF1HW105M	J	1	50V	Electrolytic	AB
C1033	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C1034	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1035	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1036	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB
C1037	VCEAPF1CW106M	J	10	16V	Electrolytic	AB

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CONVERTER UNIT (Continued)

CAPACITORS (Continued)

Ref. No.	Part No.	★	Description			Code
C1038	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C1039	VCCCTV1HH220J	J	22p	50V	Ceramic	AA
C1040	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C1041	VCCCTV1HH270J	J	27p	50V	Ceramic	AA
C1042	VCCCTV1HH220J	J	22p	50V	Ceramic	AA
C1043	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C1044	VCCCTV1HH270J	J	27p	50V	Ceramic	AA
C1045	VCCCTV1HH220J	J	22p	50V	Ceramic	AA
C1046	VCEAPF1CW106M	J	10	16V	Electrolytic	AB
C1047	VCCCTV1HH270J	J	27p	50V	Ceramic	AA
C1048	VCEAPF1CW226M	J	22	16V	Electrolytic	AB
C1049	VCKYTV1HB103K	J	0.01	50V	Ceramic	AA

RESISTORS

Ref. No.	Part No.	★				Code
R1001	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1003	VRS-TV1JD562J	J	5.6k	1/16W	Metal Oxide	AA
R1004	VRS-TV1JD471J	J	470	1/16W	Metal Oxide	AA
R1005	VRS-TV1JD222J	J	2.2k	1/16W	Metal Oxide	AA
R1006	VRS-TV1JD561J	J	560	1/16W	Metal Oxide	AA
R1007	VRS-TV1JD561J	J	560	1/16W	Metal Oxide	AA
R1008	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1010	VRS-TV1JD562J	J	5.6k	1/16W	Metal Oxide	AA
R1011	VRS-TV1JD471J	J	470	1/16W	Metal Oxide	AA
R1012	VRS-TV1JD222J	J	2.2k	1/16W	Metal Oxide	AA
R1013	VRS-TV1JD561J	J	560	1/16W	Metal Oxide	AA
R1014	VRS-TV1JD561J	J	560	1/16W	Metal Oxide	AA
R1015	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1017	VRS-TV1JD562J	J	5.6k	1/16W	Metal Oxide	AA
R1018	VRS-TV1JD471J	J	470	1/16W	Metal Oxide	AA
R1019	VRS-TV1JD222J	J	2.2k	1/16W	Metal Oxide	AA
R1020	VRS-TV1JD561J	J	560	1/16W	Metal Oxide	AA
R1021	VRS-TV1JD561J	J	560	1/16W	Metal Oxide	AA
R1022	VRS-TV1JD560J	J	56	1/16W	Metal Oxide	AA
R1023	VRS-TV1JD560J	J	56	1/16W	Metal Oxide	AA
R1024	VRS-TV1JD560J	J	56	1/16W	Metal Oxide	AA
R1025	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1026	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1027	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1028	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1029	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1030	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1031	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1032	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1033	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1034	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1035	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1036	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1037	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1038	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA

RESISTORS (Continued)

Ref. No.	Part No.	★				Code
R1039	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1040	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1041	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1042	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1043	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1044	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1045	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1046	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1047	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1048	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1049	VRS-TW2ED101J	J	100	1/4W	Metal Oxode	AA
R1050	VRS-TW2ED101J	J	100	1/4W	Metal Oxode	AA
R1051	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1052	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1053	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1054	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1055	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1056	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1057	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1058	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1059	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1060	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1061	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1062	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1063	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1064	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1065	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1066	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1067	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1068	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1069	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1070	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1071	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1072	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1073	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1074	VRS-TV1JD391J	J	390	1/16W	Metal Oxide	AA
R1075	VRS-TV1JD101J	J	100	1/16W	Metal Oxide	AA
R1076	VRS-TV1JD563J	J	56k	1/16W	Metal Oxide	AA
R1078	VRS-TV1JD271J	J	270	1/16W	Metal Oxide	AA
R1080	VRS-TV1JD563J	J	56k	1/16W	Metal Oxide	AA
R1081	VRS-TV1JD105J	J	1M	1/16W	Metal Oxide	AA
R1082	VRS-TV1JD103J	J	10k	1/16W	Metal Oxide	AA
R1083	VRS-TV1JD683J	J	68k	1/16W	Metal Oxide	AA
R1084	VRS-TV1JD105J	J	1M	1/16W	Metal Oxide	AA
R1085	VRS-TV1JD682J	J	6.8k	1/16W	Metal Oxide	AA
R1086	VRS-TV1JD683J	J	68k	1/16W	Metal Oxide	AA
R1087	VRS-TV1JD472J	J	4.7k	1/16W	Metal Oxide	AA
R1088	VRS-TV1JD273J	J	27k	1/16W	Metal Oxide	AA
R1089	VRS-TV1JD472J	J	4.7k	1/16W	Metal Oxide	AA
R1090	VRS-TV1JD122J	J	2.2k	1/16W	Metal Oxide	AA
R1091	VRS-TV1JD471J	J	470	1/16W	Metal Oxide	AA
R1092	VRS-TV1JD560J	J	56	1/16W	Metal Oxide	AA
R1093	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA
R1094	VRS-TV1JD102J	J	1k	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code

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CONVERTER UNIT (Continued)

RESISTORS (Continued)

R1095	VRS-TV1JD182J	J	1.8k 1/16W Metal Oxide	AA
R1096	VRS-TV1JD223J	J	22k 1/16W Metal Oxide	AA
R1097	VRS-TV1JD823J	J	82k 1/16W Metal Oxide	AA
R1098	VRS-TV1JD152J	J	1.5k 1/16W Metal Oxide	AA
R1099	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R1100	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R1101	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R1102	VRS-TV1JD272J	J	2.7k 1/16W Metal Oxide	AA
R1103	VRS-TV1JD560J	J	56 1/16W Metal Oxide	AA
R1104	VRS-TV1JD560J	J	56 1/16W Metal Oxide	AA
R1105	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R1106	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R1107	VRS-TV1JD182J	J	1.8k 1/16W Metal Oxide	AA
R1108	VRS-TV1JD223J	J	22k 1/16W Metal Oxide	AA
R1109	VRS-TV1JD823J	J	82k 1/16W Metal Oxide	AA
R1110	VRS-TV1JD152J	J	1.5k 1/16W Metal Oxide	AA
R1111	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R1112	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R1113	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R1114	VRS-TV1JD272J	J	2.7k 1/16W Metal Oxide	AA
R1115	VRS-TV1JD560J	J	56 1/16W Metal Oxide	AA
R1116	VRS-TV1JD560J	J	56 1/16W Metal Oxide	AA
R1117	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R1118	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R1119	VRS-TV1JD182J	J	1.8k 1/16W Metal Oxide	AA
R1120	VRS-TV1JD223J	J	22k 1/16W Metal Oxide	AA
R1121	VRS-TV1JD823J	J	82k 1/16W Metal Oxide	AA
R1122	VRS-TV1JD152J	J	1.5k 1/16W Metal Oxide	AA
R1123	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R1124	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R1125	VRS-TV1JD102J	J	1k 1/16W Metal Oxide	AA
R1126	VRS-TV1JD272J	J	2.7k 1/16W Metal Oxide	AA
R1127	VRS-TV1JD560J	J	56 1/16W Metal Oxide	AA
R1128	*See Controls*			
R1129	VRS-TV1JD183J	J	18k 1/16W Metal Oxide	AA
R1130	VRS-TV1JD821J	J	820 1/16W Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code

MISCELLANEOUS PARTS

FB1001	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB1003	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB1004	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB1005	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB1006	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB1007	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB1008	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB1010	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB1011	RBLN-0065CEZZ	J	Ferrite Bead	AB
FB1012	RBLN-0059CEZZ	J	Ferrite Bead	AB
FB1013	RBLN-0059CEZZ	J	Ferrite Bead	AB
FB1014	RBLN-0059CEZZ	J	Ferrite Bead	AB
FB1015	RBLN-0059CEZZ	J	Ferrite Bead	AB
	QPLGN0278GEZZ	J	Plug 2-pin, (DD)	AA
	QPLGN0478GEZZ	J	Plug 4-pin, (DB), (EG)	AB
	QPLGN0678GEZZ	J	Plug 6-pin, (DA), (DC)	AB

—— End of CONVERTER UNIT ——

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PC IF UNIT

INTEGRATED CIRCUITS

Ref. No.	Part No.	★	Description	Code
IC8001	9DK001-12002	J	TTL	AK
IC8002	9DK001-12002	J	TTL	AK
IC8003	9DK001-12002	J	TTL	AK
IC8004	9DK001-11002	J	Field Memory	BE
IC8005	9DK001-11002	J	Field Memory	BE
IC8006	9DK001-11002	J	Field Memory	BE
IC8007	9DK001-11002	J	Field Memory	BE
IC8008	9DK001-11002	J	Field Memory	BE
IC8009	9DK001-11002	J	Field Memory	BE
IC8010	9DK001-11002	J	Field Memory	BE
IC8011	9DK001-11002	J	Field Memory	BE
IC8012	9DK001-11002	J	Field Memory	BE
IC8013	9DK001-11002	J	Field Memory	BE
IC8014	9DK001-11002	J	Field Memory	BE
IC8015	9DK001-11002	J	Field Memory	BE
IC8017	9DK001-14001	J	Gate Array, iX2170CE	BH
IC8018	9DK001-11001	J	EEPROM	AW
IC8019	9DK001-15005	J	Reset IC	AG
IC8020	9DK001-10001	J	One Chip CPU	BH
IC8021	9DK001-12009	J	TTL	AK
IC8022	9DK001-12001	J	TTL	AG
IC8023	9DK001-15007	J	Voltage Regulator	AG
IC8024	9DK001-15002	J	VCO	AZ
IC8025	9DK001-15007	J	Voltage Regulator	AG
IC8027	9DK001-15003	J	Phase Comparator	AW
IC8028	9DK001-15001	J	A/D Converter	BE
IC8029	9DK001-15001	J	A/D Converter	BE
IC8030	9DK001-15001	J	A/D Converter	BE
IC8031	9DK001-15004	J	Video Amp.	AZ
IC8032	9DK001-12003	J	TTL	AG
IC8033	9DK001-12005	J	TTL	AF
IC8034	9DK001-12004	J	TTL	AG
IC8035	9DK001-15008	J	Comparator	AP

TRANSISTORS

Ref. No.	Part No.	★	Description	Code
Q8003	9DK001-20003	J	2SC1959(Y)	AC
Q8004	9DK001-20004	J	RN2501	AD
Q8005	9DK001-20004	J	RN2501	AD
Q8006	9DK001-20004	J	RN2501	AD

DIODES

Ref. No.	Part No.	★	Description	Code
D8001	9DK001-30002	J	1SS1587	AB
D8002	9DK001-30002	J	1SS1587	AB
D8003	9DK001-30002	J	1SS1587	AB
D8004	9DK001-30001	J	1SS193	AC
D8005	9DK001-30001	J	1SS193	AC
D8006	9DK001-30001	J	1SS193	AC

DIODES (Continued)

Ref. No.	Part No.	★	Description	Code
D8007	9DK001-30001	J	1SS193	AC
D8008	9DK001-30001	J	1SS193	AC
D8009	9DK001-30001	J	1SS193	AC
D8010	9DK001-30001	J	1SS193	AC
D8011	9DK001-30001	J	1SS193	AC
D8012	9DK001-30001	J	1SS193	AC
D8013	9DK001-30003	J	1SS268	AD
D8014	9DK001-30003	J	1SS268	AD
D8015	9DK001-30003	J	1SS268	AD
D8016	9DK001-30004	J	1SV147	AF
D8017	9DK001-30001	J	1SS193	AC
D8018	9DK001-30001	J	1SS193	AC
D8019	9DK001-30001	J	1SS193	AC
D8020	9DK001-30001	J	1SS193	AC
D8021	9DK001-30001	J	1SS193	AC
D8022	9DK001-30001	J	1SS193	AC
D8023	9DK001-30001	J	1SS193	AC
D8024	9DK001-30001	J	1SS193	AC
D8025	9DK001-31001	J	LED, GL3PR8	AC

PACKAGED CIRCUITS

Ref. No.	Part No.	★	Description	Code
X8001	9DK001-80001	J	Crystal, 25.175 MHz	AX
X8002	9DK001-80002	J	Crystal	AK

COILS

Ref. No.	Part No.	★	Description	Code
FB8001	9DK001-82004	J	Filter	AS
FL8001	9DK001-82003	J	Filter	AE
FL8002	9DK001-82003	J	Filter	AE
FL8003	9DK001-82002	J	Filter	AE
FL8004	9DK001-82002	J	Filter	AE
FL8038	9DK001-82002	J	Filter	AE
FL8039	9DK001-82002	J	Filter	AE
FL8040	9DK001-82002	J	Filter	AE
L8002	9DK001-81001	J	Coil	AN

CONTROLS

Ref. No.	Part No.	★	Description	Code
R8151	9DK001-52001	J	2.2k(B) B-Level 1	AG
R8152	9DK001-52001	J	2.2k(B) G-Level 1	AG
R8153	9DK001-52001	J	2.2k(B) R-Level 1	AG
R8154	9DK001-52002	J	150(B) B-Level 2	AG
R8155	9DK001-52002	J	150(B) G-Level 2	AG
R8156	9DK001-52003	J	33k(B) Gain	AG

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PC IF UNIT (Continued)

CAPACITORS

Ref. No.	Part No.	★	Description	Code
C8001	9DK001-42005 J	1	16V Ceramic	AC
C8002	9DK001-42005 J	1	16V Ceramic	AC
C8003	9DK001-42005 J	1	16V Ceramic	AC
C8004	9DK001-42005 J	1	16V Ceramic	AC
C8005	9DK001-42005 J	1	16V Ceramic	AC
C8006	9DK001-42005 J	1	16V Ceramic	AC
C8007	9DK001-42005 J	1	16V Ceramic	AC
C8008	9DK001-42005 J	1	16V Ceramic	AC
C8009	9DK001-42005 J	1	16V Ceramic	AC
C8010	9DK001-42005 J	1	16V Ceramic	AC
C8011	9DK001-42005 J	1	16V Ceramic	AC
C8012	9DK001-42005 J	1	16V Ceramic	AC
C8013	9DK001-42005 J	1	16V Ceramic	AC
C8014	9DK001-42005 J	1	16V Ceramic	AC
C8015	9DK001-42005 J	1	16V Ceramic	AC
C8016	9DK001-42005 J	1	16V Ceramic	AC
C8017	9DK001-42005 J	1	16V Ceramic	AC
C8018	9DK001-42005 J	1	16V Ceramic	AC
C8019	9DK001-42005 J	1	16V Ceramic	AC
C8020	9DK001-42005 J	1	16V Ceramic	AC
C8021	9DK001-42004 J	0.1	25V Ceramic	AA
C8022	9DK001-42004 J	0.1	25V Ceramic	AA
C8023	9DK001-42004 J	0.1	25V Ceramic	AA
C8024	9DK001-42004 J	0.1	25V Ceramic	AA
C8025	9DK001-42004 J	0.1	25V Ceramic	AA
C8026	9DK001-42004 J	0.1	25V Ceramic	AA
C8027	9DK001-40010 J	22	6.3V Electrolytic	AD
C8028	9DK001-42004 J	0.1	25V Ceramic	AA
C8029	9DK001-42004 J	0.1	25V Ceramic	AA
C8030	9DK001-40009 J	100	16V Electrolytic	AD
C8031	9DK001-40009 J	100	16V Electrolytic	AD
C8032	9DK001-42004 J	0.1	25V Ceramic	AA
C8033	9DK001-40009 J	100	16V Electrolytic	AD
C8034	9DK001-42004 J	0.1	25V Ceramic	AA
C8035	9DK001-42004 J	0.1	25V Ceramic	AA
C8036	9DK001-42004 J	0.1	25V Ceramic	AA
C8037	9DK001-40009 J	100	16V Electrolytic	AD
C8038	9DK001-42004 J	0.1	25V Ceramic	AA
C8039	9DK001-42004 J	0.1	25V Ceramic	AA
C8040	9DK001-40007 J	47	6.3V Electrolytic	AD
C8045	9DK001-42014 J	4.7	50V Ceramic	AU
C8046	9DK001-42004 J	0.1	25V Ceramic	AA
C8047	9DK001-42004 J	0.1	25V Ceramic	AA
C8048	9DK001-42004 J	0.1	25V Ceramic	AA
C8049	9DK001-42003 J	0.01	50V Ceramic	AB
C8050	9DK001-42004 J	0.1	25V Ceramic	AA
C8051	9DK001-42004 J	0.1	25V Ceramic	AA
C8052	9DK001-42004 J	0.1	25V Ceramic	AA
C8053	9DK001-42004 J	0.1	25V Ceramic	AA
C8055	9DK001-42003 J	0.01	50V Ceramic	AB
C8056	9DK001-42006 J	1p	50V Ceramic	AA

CAPACITORS (Continued)

Ref. No.	Part No.	★	Description	Code
C8057	9DK001-42004 J	0.1	25V Ceramic	AA
C8058	9DK001-42008 J	10p	50V Ceramic	AA
C8059	9DK001-42004 J	0.1	25V Ceramic	AA
C8060	9DK001-42009 J	22p	50V Ceramic	AA
C8061	9DK001-42004 J	0.1	25V Ceramic	AA
C8062	9DK001-42002 J	47p	50V Ceramic	AA
C8063	9DK001-42004 J	0.1	25V Ceramic	AA
C8064	9DK001-42012 J	100p	50V Ceramic	AA
C8065	9DK001-42004 J	0.1	25V Ceramic	AA
C8066	9DK001-45001 J	90p	Trimmer Capacitor	AK
C8067	9DK001-42011 J	68p	50V Ceramic	AA
C8068	9DK001-42004 J	0.1	25V Ceramic	AA
C8069	9DK001-40002 J	22	6.3V Electrolytic	AE
C8070	9DK001-42004 J	0.1	25V Ceramic	AA
C8071	9DK001-42004 J	0.1	25V Ceramic	AA
C8072	9DK001-40001 J	4.7	35V Electrolytic	AE
C8073	9DK001-42002 J	47p	50V Ceramic	AA
C8074	9DK001-42001 J	8p	50V Ceramic	AA
C8075	9DK001-42004 J	0.1	25V Ceramic	AA
C8076	9DK001-40002 J	22	6.3V Electrolytic	AE
C8077	9DK001-42004 J	0.1	25V Ceramic	AA
C8078	9DK001-40001 J	4.7	35V Electrolytic	AE
C8079	9DK001-42004 J	0.1	25V Ceramic	AA
C8080	9DK001-40001 J	4.7	35V Electrolytic	AE
C8081	9DK001-42004 J	0.1	25V Ceramic	AA
C8082	9DK001-42004 J	0.1	25V Ceramic	AA
C8083	9DK001-40001 J	4.7	35V Electrolytic	AE
C8084	9DK001-42002 J	47p	50V Ceramic	AA
C8085	9DK001-42001 J	8p	50V Ceramic	AA
C8086	9DK001-42004 J	0.1	25V Ceramic	AA
C8087	9DK001-42004 J	0.1	25V Ceramic	AA
C8088	9DK001-40001 J	4.7	35V Electrolytic	AE
C8089	9DK001-42004 J	0.1	25V Ceramic	AA
C8090	9DK001-40001 J	4.7	35V Electrolytic	AE
C8091	9DK001-42004 J	0.1	25V Ceramic	AA
C8092	9DK001-42004 J	0.1	25V Ceramic	AA
C8094	9DK001-42002 J	47p	50V Ceramic	AA
C8095	9DK001-42001 J	8p	50V Ceramic	AA
C8096	9DK001-42004 J	0.1	25V Ceramic	AA
C8098	9DK001-40001 J	4.7	35V Electrolytic	AE
C8099	9DK001-42004 J	0.1	25V Ceramic	AA
C8100	9DK001-40001 J	4.7	35V Electrolytic	AE
C8101	9DK001-42004 J	0.1	25V Ceramic	AA
C8102	9DK001-42004 J	0.1	25V Ceramic	AA
C8103	9DK001-42004 J	0.1	25V Ceramic	AA
C8104	9DK001-40009 J	100	16V Electrolytic	AD
C8105	9DK001-42004 J	0.1	25V Ceramic	AA
C8106	9DK001-42004 J	0.1	25V Ceramic	AA
C8107	9DK001-42004 J	0.1	25V Ceramic	AA
C8108	9DK001-42004 J	0.1	25V Ceramic	AA
C8109	9DK001-42004 J	0.1	25V Ceramic	AA
C8111	9DK001-42004 J	0.1	25V Ceramic	AA
C8112	9DK001-42004 J	0.1	25V Ceramic	AA
C8113	9DK001-42004 J	0.1	25V Ceramic	AA

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PC IF UNIT (Continued)

CAPACITORS (Continued)

Ref. No.	Part No.	★	Description			Code
C8114	9DK001-40011	J	100	16V	Electrolytic	AF
C8115	9DK001-40004	J	10	16V	Electrolytic	AD
C8116	9DK001-40005	J	10	50V	Electrolytic	AD
C8117	9DK001-40005	J	10	50V	Electrolytic	AD
C8118	9DK001-40005	J	10	50V	Electrolytic	AD
C8119	9DK001-42004	J	0.1	25V	Ceramic	AA
C8120	9DK001-42004	J	0.1	25V	Ceramic	AA
C8121	9DK001-42004	J	0.1	25V	Ceramic	AA
C8122	9DK001-40011	J	100	16V	Electrolytic	AF
C8123	9DK001-42004	J	0.1	25V	Ceramic	AA
C8124	9DK001-42004	J	0.1	25V	Ceramic	AA
C8128	9DK001-42011	J	68p	50V	Ceramic	AA
C8130	9DK001-42004	J	0.1	25V	Ceramic	AA
C8131	9DK001-42004	J	0.1	25V	Ceramic	AA

RESISTORS

Ref. No.	Part No.	★			Code
R8002	9DK001-50004	J	100	1/10W	AA
R8003	9DK001-50004	J	100	1/10W	AA
R8004	9DK001-50004	J	100	1/10W	AA
R8006	9DK001-50013	J	22k	1/10W	AA
R8007	9DK001-50005	J	300	1/10W	AA
R8008	9DK001-50011	J	5.6k	1/10W	AA
R8009	9DK001-50011	J	5.6k	1/10W	AA
R8010	9DK001-50011	J	5.6k	1/10W	AA
R8012	9DK001-50011	J	5.6k	1/10W	AA
R8013	9DK001-50011	J	5.6k	1/10W	AA
R8014	9DK001-50011	J	5.6k	1/10W	AA
R8015	9DK001-50006	J	560	1/10W	AA
R8016	9DK001-50011	J	5.6k	1/10W	AA
R8017	9DK001-50011	J	5.6k	1/10W	AA
R8018	9DK001-50007	J	1k	1/10W	AA
R8019	9DK001-50007	J	1k	1/10W	AA
R8020	9DK001-50007	J	1k	1/10W	AA
R8021	9DK001-50007	J	1k	1/10W	AA
R8022	9DK001-50012	J	10k	1/10W	AA
R8023	9DK001-50012	J	10k	1/10W	AA
R8024	9DK001-50012	J	10k	1/10W	AA
R8025	9DK001-50012	J	10k	1/10W	AA
R8026	9DK001-50004	J	100	1/10W	AA
R8027	9DK001-50004	J	100	1/10W	AA
R8028	9DK001-50004	J	100	1/10W	AA
R8029	9DK001-50004	J	100	1/10W	AA
R8030	9DK001-50004	J	100	1/10W	AA
R8031	9DK001-50004	J	100	1/10W	AA
R8032	9DK001-50012	J	10k	1/10W	AA
R8033	9DK001-50014	J	75	1/4W	AA
R8034	9DK001-50014	J	75	1/4W	AA
R8035	9DK001-50014	J	75	1/4W	AA

RESISTORS (Continued)

Ref. No.	Part No.	★			Code
R8036	9DK001-50011	J	5.6k	1/10W	AA
R8037	9DK001-50004	J	100	1/10W	AA
R8038	9DK001-50004	J	100	1/10W	AA
R8039	9DK001-50004	J	100	1/10W	AA
R8040	9DK001-50008	J	2.2k	1/10W	AA
R8041	9DK001-50010	J	4.7k	1/10W	AA
R8042	9DK001-50012	J	10k	1/10W	AA
R8044	9DK001-50013	J	22k	1/10W	AA
R8045	9DK001-50013	J	22k	1/10W	AA
R8047	9DK001-50005	J	300	1/10W	AA
R8048	9DK001-50012	J	10k	1/10W	AA
R8049	9DK001-50004	J	100	1/10W	AA
R8050	9DK001-50009	J	3.3k	1/10W	AA
R8051	9DK001-50008	J	2.2k	1/10W	AA
R8052	9DK001-50008	J	2.2k	1/10W	AA
R8053	9DK001-50008	J	2.2k	1/10W	AA
R8054	9DK001-50008	J	2.2k	1/10W	AA
R8055	9DK001-50008	J	2.2k	1/10W	AA
R8056	9DK001-50008	J	2.2k	1/10W	AA
R8057	9DK001-50008	J	2.2k	1/10W	AA
R8058	9DK001-50007	J	1k	1/10W	AA
R8059	9DK001-50004	J	100	1/10W	AA
R8060	9DK001-50007	J	1k	1/10W	AA
R8061	9DK001-50004	J	100	1/10W	AA
R8062	9DK001-50007	J	1k	1/10W	AA
R8063	9DK001-50004	J	100	1/10W	AA
R8064	9DK001-50004	J	100	1/10W	AA
R8065	9DK001-50004	J	100	1/10W	AA
R8066	9DK001-50004	J	100	1/10W	AA
R8067	9DK001-50012	J	10k	1/10W	AA
R8068	9DK001-50012	J	10k	1/10W	AA
R8069	9DK001-50012	J	10k	1/10W	AA
R8070	9DK001-50006	J	560	1/10W	AA
R8071	9DK001-50010	J	4.7k	1/10W	AA
R8074	9DK001-50016	J	82	1/10W	AA
R8075	9DK001-50006	J	560	1/10W	AA
R8076	9DK001-50010	J	4.7k	1/10W	AA
R8079	9DK001-50001	J	10	1/10W	AA
R8080	9DK001-50006	J	560	1/10W	AA
R8081	9DK001-50010	J	4.7k	1/10W	AA
R8084	9DK001-50001	J	10	1/10W	AA
R8085	9DK001-50003	J	68	1/10W	AA
R8086	9DK001-50003	J	68	1/10W	AA
R8087	9DK001-50003	J	68	1/10W	AA
R8089	9DK001-50017	J	220	1/10W	AA
R8091	9DK001-50011	J	5.6k	1/10W	AA
R8092	9DK001-50011	J	5.6k	1/10W	AA
R8093	9DK001-50011	J	5.6k	1/10W	AA
R8094	9DK001-50007	J	1k	1/10W	AA
R8095	9DK001-50008	J	2.2k	1/10W	AA
R8096	9DK001-50008	J	2.2k	1/10W	AA
R8097	9DK001-50008	J	2.2k	1/10W	AA
R8098	9DK001-50008	J	2.2k	1/10W	AA
R8099	9DK001-50008	J	2.2k	1/10W	AA

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PC IF UNIT (Continued)

RESISTORS (Continued)

Ref. No.	Part No.	★	Description	Code
R8100	9DK001-50008	J	2.2k 1/10W	AA
R8101	9DK001-50012	J	10k 1/10W	AA
R8102	9DK001-50020	J	120 1/10W	AA
R8103	9DK001-50020	J	120 1/10W	AA
R8104	9DK001-50020	J	120 1/10W	AA
R8105	9DK001-50004	J	100 1/10W	AA
R8106	9DK001-50017	J	220 1/10W	AA
R8107	9DK001-50017	J	220 1/10W	AA
R8108	9DK001-50020	J	120 1/10W	AA
R8109	9DK001-50020	J	120 1/10W	AA
R8110	9DK001-50020	J	120 1/10W	AA
R8111	9DK001-50020	J	120 1/10W	AA
R8112	9DK001-50020	J	120 1/10W	AA
R8113	9DK001-50020	J	120 1/10W	AA
R8114	9DK001-50020	J	120 1/10W	AA
R8115	9DK001-50020	J	120 1/10W	AA
R8116	9DK001-50020	J	120 1/10W	AA
R8117	9DK001-50020	J	120 1/10W	AA
R8118	9DK001-50020	J	120 1/10W	AA
R8119	9DK001-50020	J	120 1/10W	AA
R8120	9DK001-50020	J	120 1/10W	AA
R8121	9DK001-50020	J	120 1/10W	AA
R8122	9DK001-50020	J	120 1/10W	AA
R8123	9DK001-50020	J	120 1/10W	AA
R8124	9DK001-50020	J	120 1/10W	AA
R8125	9DK001-50020	J	120 1/10W	AA
R8126	9DK001-50020	J	120 1/10W	AA
R8127	9DK001-50020	J	120 1/10W	AA
R8128	9DK001-50020	J	120 1/10W	AA
R8129	9DK001-50020	J	120 1/10W	AA
R8130	9DK001-50020	J	120 1/10W	AA
R8131	9DK001-50020	J	120 1/10W	AA
R8151	*See Controls*			
R8152	*See Controls*			
R8153	*See Controls*			
R8154	*See Controls*			
R8155	*See Controls*			
R8156	*See Controls*			
R8200	9DK001-50018	J	3.9k 1/10W	AA
R8201	9DK001-50007	J	1k 1/10W	AA

SWITCHES

Ref. No.	Part No.	★	Description	Code
S8001	9DK001-70004	J	Side Switch	AS
S8111	9DK001-70001	J	Horiz. Position <	AE
S8112	9DK001-70001	J	Horiz. Position >	AE
S8113	9DK001-70001	J	Vertical Position ∧	AE
S8114	9DK001-70001	J	Vertical Position ∨	AE
S8115	9DK001-70001	J	Phase >	AE
S8116	9DK001-70001	J	Phase <	AE
S8117	9DK001-70002	J	Clock >	AE
S8118	9DK001-70002	J	Clock <	AE
S8120	9DK001-70001	J	Mode	AE
S8121	9DK001-70003	J	Reset	AE

MISCELLANEOUS PARTS

Ref. No.	Part No.	★	Description	Code
J8002	9DK001-60004	J	Connector 15 pin, RGB Input (PC)	AS
	9DK001-60001	J	Connector 60 pin, (VG)	AZ
	9DK001-60002	J	Connector 4 pin, (EV)	AE
	9DK001-60003	J	Connector 2 pin, (GK)	AC
	9DK001-90001	J	Shield Case, Top	AP
	9DK001-90003	J	LED Angle	AL
	9DK001-84005	J	Test Point, (TP)	AD
	9DK001-84006	J	Test Point, (P2)	AC

—— End of PC IF UNIT ——

RDENC0085CEZZ
POWER UNIT

INTEGRATED CIRCUITS

Ref. No.	Part No.	★	Description	Code
IC701	95KUCH0097ZZ	J	ZHMA5194	AM
IC702	95KUCC0018AK	J	UPC1093J-T	AF
IC703	95KUCB0095AZ	J	PQ05RF11	AH
IC704	95KUCH0097ZZ	J	ZHMA5194	AM
IC705	95KUCC0018AK	J	UPC1093J-T	AF
IC706	95KUCB0095CZ	J	PQ12RF11	AH
IC707	95KUCB0095CZ	J	PQ12RF11	AH

TRANSISTORS

Ref. No.	Part No.	★	Description	Code
Q701	95KUAC0139AZ	J	2SC3551	AM
Q702	95KUAC0027CK	J	2SC2655	AD
Q703	95KUAC0020DK	J	2SC2001	AC
Q704	95KUAC0225JZ	J	2SC4304	AH
Q705	95KUAC0027CK	J	2SC2655	AD
Q706	95KUAZ0014AK	J	BA1A4M-T	AB
Q709	95KUAZ0012AK	J	BN1A4M-T	AB
Q712	95KUAZ0014AK	J	BA1A4M-T	AB

DIODES

Ref. No.	Part No.	★	Description	Code
⚠ D701	95KUBB0087DZ	J	D5SB60	AR
D702	95KUBC0169DK	J	ERA22-08V1	AD
D703	95KUBC0169DK	J	ERA22-08V1	AD
D704	95KUDA0033DL	J	CR02AM-6-TB	AD
D705	95KUBA0005KZ	J	1SS55-T4	AB
D706	95KUBA0005KZ	J	1SS55-T4	AB
D707	95KUBC0250AK	J	5ELS2-TA2B2	AC
D708	95KUBC0102BB	J	ERB84-009 (L6)	AF
D709	95KUBB0158AT	J	ESAB92M-02	AG
D710	95KUBC0173AE	J	ERC91-02-UA	AH
D711	95KUBDAK100D	J	RD10ESAB-T4	AB
D712	95KUBDAK100C	J	RD10ESAB-T4	AB
D713	95KUBC0250AK	J	5ELS2-TA2B2	AC
D714	95KUBC0174AD	J	ERB93-02L6	AE
D715	95KUBB0066BT	J	ESAB85M-009	AH
D716	95KUBDAK160D	J	RD16ESAB-T4	AB
D717	95KUBC0169DK	J	ERA22-08V1	AD
D718	95KUBC0169DK	J	ERA22-08V1	AD
D719	95KUBA0005KZ	J	1SS55-T4	AB
D720	95KUBC0250AK	J	5ELS2-TA2B2	AC
D721	95KUBA0005KZ	J	1SS55-T4	AB
D722	95KUBA0005KZ	J	1SS55-T4	AB
D723	95KUBA0005KZ	J	1SS55-T4	AB
D724	95KUBC0236AK	J	15DF2-TA2B1	AC
D725	95KUBA0005KZ	J	1SS55-T4	AB
D726	95KUBC0236AB	J	15DF2-FC4	AC
D727	95KUBA0005KZ	J	1SS55-T4	AB
D728	95KUBA0005KZ	J	1SS55-T4	AB

DIODES (Continued)

Ref. No.	Part No.	★	Description	Code
D729	95KUBA0005KZ	J	1SS55-T4	AB
D730	95KUBA0005KZ	J	1SS55-T4	AB
D731	95KUBDAK160D	J	RD16ESAB-T4	AB
D736	95KUBC0133AD	J	ERC84-009UA	AK
D737	95KUBA0005KZ	J	1SS55-T4	AB

PHOTO COUPLERS

Ref. No.	Part No.	★	Description	Code
⚠ PC701	95KUDC0065LB	J	TLP634	AK
⚠ PC702	95KUDC0065LB	J	TLP634	AK
⚠ PC703	95KUDC0065LB	J	TLP634	AK
⚠ PC704	95KUDC0065LB	J	TLP634	AK

COILS AND TRANSFORMERS

Ref. No.	Part No.	★	Description	Code
⚠ L701	95KUKZ0255ZZ	J	Choke Coil, SC-04-200J	AX
⚠ L702	95KUKZ0382ZZ	J	Line Filter, SE28V-30045	AU
L703	95KUKZ0496ZK	J	Choke Coil, LHL08TB4R7M	AE
L705	95KUKZ0522ZK	J	Choke Coil, LHL08TB-680K	AE
⚠ T701	95K129295020	J	Trans., PTTP74	BA
⚠ T702	95K129295021	J	Trans., PTTP75	AX

CONTROLS

Ref. No.	Part No.	★	Description	Code
R730	95KUFBA472CX	J	4.7k(B) Voltage Adj.	AC
	or			
	95KUFBA502CB	J	5k(B)	AD
R752	95KUFBA472CX	J	4.7k(B) Voltage Adj.	AC
	or			
	95KUFBA502CB	J	5k(B)	AD

CAPACITORS

Ref. No.	Part No.	★	Description	Code
⚠ C702	95KUGFZ223FE	J	0.022 Film	AE
⚠ C703	95KUGBQ471BX	J	470 400V Block	AY
C704	95KUGFQ103FB	J	0.01 400V Film	AC
C705	95KUGCU101AV	J	100p Ceramic	AC
⚠ C706	95KUGCQ102AB	J	1000p Ceramic	AC
⚠ C707	95KUGCZ102BV	J	1000p Ceramic	AC
C708	95KUGAF010FD	J	1 50V Electrolytic	AB
C709	95KUGCU102AK	J	1000p Ceramic	AC
C711	95KUGCF102BX	J	1000p Ceramic	AA
C712	95KUGFF473BQ	J	0.047 Film	AB
C713	95KUGFF473BQ	J	0.047 Film	AB
C714	95KUGFF103BQ	J	0.01 Film	AB
C716	95KUGAE470FD	J	47 35V Electrolytic	AC
C717	95KUGAC821GK	J	820 16V Electrolytic	AF
C718	95KUGAC821GK	J	820 16V Electrolytic	AF
C719	95KUGAC331FD	J	330 16V Electrolytic	AD
C720	95KUGAD391GK	J	390 25V Electrolytic	AE

RDENC0085CEZZ
POWER UNIT (Continued)

CAPACITORS (Continued)

Ref. No.	Part No.	★	Description	Code
C721	95KUGFF103BQ	J	0.01 50V Film	AB
C722	95KUGAF470FD	J	47 50V Electrolytic	AC
C723	95KUGCZ102BQ	J	1000p 500V Ceramic	AB
C724	95KUGAF100FD	J	10 50V Electrolytic	AB
C725	95KUGAD471GK	J	470 25V Electrolytic	AE
C726	95KUGAC152GK	J	1500 16V Electrolytic	AG
C727	95KUGAC221HN	J	220 16V Electrolytic	AC
C728	95KUGAB101FD	J	100 10V Electrolytic	AB
C729	95KUGAC332GK	J	3300 16V Electrolytic	AG
C730	95KUGFQ103FB	J	0.01 400V Film	AC
C731	95KUGCU101AV	J	100p Ceramic	AC
C733	95KUGFF104BQ	J	0.1 50V Film	AC
⚠ C734	95KUGCQ222AQ	J	2200p Ceramic	AC
⚠ C735	95KUGCQ222AB	J	2200p Ceramic	AD
C736	95KUGCF102BX	J	1000p 50V Ceramic	AA
C737	95KUGFF333BQ	J	0.033 50V Film	AB
C738	95KUGFF333BQ	J	0.033 50V Film	AB
C739	95KUGFF104AR	J	0.1 50V Film	AC
C740	95KUGFF104BQ	J	0.1 50V Film	AC
C741	95KUGCZ102BQ	J	1000p 500V Ceramic	AB
C742	95KUGAD331GK	J	330 25V Electrolytic	AE
C743	95KUGAC101JG	J	100 16V Electrolytic	AC
C744	95KUGAD561PU	J	560 25V Electrolytic	AE
C745	95KUGAD101FD	J	100 25V Electrolytic	AC
C746	95KUGAC102FE	J	1000 16V Electrolytic	AE
⚠ C747	95KUGCQ102AB	J	1000p Ceramic	AC
⚠ C748	95KUGCQ102AB	J	1000p Ceramic	AC
C749	95KUGCU221AK	J	220p Ceramic	AC
C750	95KUGCU221AK	J	220p Ceramic	AC
C751	95KUGFF104AR	J	0.1 50V Film	AC

RESISTORS

⚠ R701	95KUEAG1R5AB	J	1.5	AE
⚠ R702	95KUEEC474BE	J	470k 1/2W Carbon	AA
⚠ R703	95KUEZ0262ZZ	J	Thermistor, 5D-11	AF
⚠ R704	95KUEGGR10AT	J	0.1 5W Cement	AE
R705	95KUEFF563AM	J	56k Metal Film	AC
R706	95KUEEB102BE	J	1k 1/4W Carbon	AA
R707	95KUEEB562BE	J	5.6k 1/4W Carbon	AA
R708	95KUEFD393BH	J	39k Metal Film	AB
R709	95KUEFD393BH	J	39k Metal Film	AB
R710	95KUEFD393BH	J	39k Metal Film	AB
R711	95KUEEC471BE	J	470 1/2W Carbon	AA
R712	95KUEEC474BE	J	470k 1/2W Carbon	AA
R713	95KUEEC474BE	J	470k 1/2W Carbon	AA
R714	95KUEEB100BE	J	10 1/4W Carbon	AA
R715	95KUEEB153BE	J	15k 1/4W Carbon	AA
R716	95KUEEB124BE	J	120k 1/4W Carbon	AA
R717	95KUEEB472BE	J	4.7k 1/4W Carbon	AA

RESISTORS

R718	95KUEEB472BE	J	4.7k 1/4W Carbon	AA
R719	95KUEFD151BH	J	150 Metal Film	AB
R720	95KUEEC224BE	J	220k 1/2W Carbon	AA
R721	95KUEEC224BE	J	220k 1/2W Carbon	AA
R722	95KUEEC224BE	J	220k 1/2W Carbon	AA
R723	95KUEEC224BE	J	220k 1/2W Carbon	AA
R724	95KUEEB681BE	J	680 1/4W Carbon	AA
R725	95KUEEB681BE	J	680 1/4W Carbon	AA
R726	95KUEEB102BE	J	1k 1/4W Carbon	AA
R727	95KUEEB102BE	J	1k 1/4W Carbon	AA
R728	95KUEEB562BE	J	5.6k 1/4W Carbon	AA
R729	95KUEEB153BE	J	15k 1/4W Carbon	AA
R730	*See Controls*			
R731	95KUEEB472BE	J	4.7k 1/4W Carbon	AA
R732	95KUEBBR10AN	J	0.1 Fuse Resistor	AC
R733	95KUEEC151BE	J	150 1/2W Carbon	AA
R734	95KUEEC151BE	J	150 1/2W Carbon	AA
R735	95KUEEB102BE	J	1k 1/4W Carbon	AA
R736	95KUEFE2R2BJ	J	2.2 Metal Film	AC
R737	95KUEEB102BE	J	1k 1/4W Carbon	AA
R738	95KUEEC564BE	J	560k 1/2W Carbon	AA
R739	95KUEEC564BE	J	560k 1/2W Carbon	AA
R740	95KUEFD393BH	J	39k Metal Film	AB
R741	95KUEFD393BH	J	39k Metal Film	AB
R742	95KUEFD393BH	J	39k Metal Film	AB
R743	95KUEFE563AV	J	56k Metal Film	AC
R744	95KUEEB472BE	J	4.7k 1/4W Carbon	AA
R745	95KUEEC331BE	J	330 1/2W Carbon	AA
R746	95KUEEB153BE	J	15k 1/4W Carbon	AA
R747	95KUEEC471BE	J	470 1/2W Carbon	AA
R748	95KUEEB224BE	J	220k 1/4W Carbon	AA
R749	95KUEEB153BE	J	15k 1/4W Carbon	AA
R750	95KUEEB102BE	J	1k 1/4W Carbon	AA
R751	95KUEEB472BE	J	4.7k 1/4W Carbon	AA
R752	*See Controls*			
R753	95KUEEB153BE	J	15k 1/4W Carbon	AA
R754	95KUEEB102BE	J	1k 1/4W Carbon	AA
R755	95KUEEB102BE	J	1k 1/4W Carbon	AA
R756	95KUEEB222BE	J	2.2k 1/4W Carbon	AA
R758	95KUEEC102BE	J	1k 1/2W Carbon	AA
R760	95KUEEB103BE	J	10k 1/4W Carbon	AA
R761	95KUEEB103BE	J	10k 1/4W Carbon	AA
R764	95KUEEB102BE	J	1k 1/4W Carbon	AA
R765	95KUEEB222BE	J	2.2k 1/4W Carbon	AA
R766	95KUEEB102BE	J	1k 1/4W Carbon	AA
R767	95KUEBBR10BA	J	0.1 Fuse Resistor	AC
R770	95KUEEB102BE	J	1k 1/4W Carbon	AA
R771	95KUEEB102BE	J	1k 1/4W Carbon	AA
R772	95KUEEB102BE	J	1k 1/4W Carbon	AA
R773	95KUEBBR10BA	J	0.1 Fuse Resistor	AC

Ref. No.	Part No.	★	Description	Code

RDENC0085CEZZ
POWER UNIT (Continued)

MISCELLANEOUS PARTS

⚠ F702	95KPJCTB5001	J	Fuse, T5A, 250V	AD
FH1	95KPZZ0625ZZ	J	Fuse Holder	AA
ICP701	95KPJP0021ZZ	J	IC Protector	AF
⚠ RY701	95KPHZ0096ZZ	J	Relay	AL
⚠ RY702	95KPHZ0096ZZ	J	Relay	AL
CN701A	95KPKZ1099ZZ	J	Connector	AD
CN701B	95KPKZ1100ZZ	J	Connector	AE
CN702A	95KPKZ1099ZZ	J	Connector	AD
CN702B	95KPKZ1100ZZ	J	Connector	AE
BA	95KPKZ0541ZZ	J	Connector, 3-pin	AB
EA	95KPKZ0526ZZ	J	Connector, 6-pin	AC
EB	95KPKZ0525ZZ	J	Connector, 5-pin	AD
ES	95KPKZ0522ZZ	J	Connector, 2-pin	AB
EV	95KPKZ0743ZZ	J	Connector, 4-pin	AC
FC	95KPKZ0541ZZ	J	Connector, 3-pin	AB
FD	95KPKZ0541ZZ	J	Connector, 3-pin	AB
FN1	95KPKZ0540ZZ	J	Connector, 4-pin	AB
PE	95KPKZ0194ZZ	J	Connector, 2-pin	AC
PL	95KPKZ1008ZZ	J	Connector, 3-pin	AC

—— End of POWER UNIT ——

Ref. No.	Part No.	★	Description	Code

RDENC0086CEZZ
BALLAST UNIT

INTEGRATED CIRCUITS

IC1701	95KUCZ0154ZZ	J	STR-D1005T	AP
IC1702	95KUCH0105ZZ	J	M67170-07	BC

TRANSISTORS

Q1701	95KUAG0062AZ	J	FET, 2SK1180	AS
Q1703	95KUAC0240CZ	J	2SC4297	AN
Q1704	95KUAC0240CZ	J	2SC4297	AN
Q1705	95KUAC0240CZ	J	2SC4297	AN
Q1706	95KUAC0240CZ	J	2SC4297	AN
Q1707	95KUAC0232AZ	J	2SC3631	AF
Q1708	95KUAG0048AZ	J	FET, 2SK1142	AM

DIODES

D1703	95KUBC0248AK	J	05NU42 TPA2	AC
D1704	95KUBB0191AZ	J	FMG-G36	AM
D1706	95KUBC0070AL	J	ERA81-004V1	AD
D1707	95KUBC0070AL	J	ERA81-004V1	AD
D1708	95KUBC0204AZ	J	RU2YX	AD
D1709	95KUBC0165BK	J	ERA38-05V1	AD
D1710	95KUBC0078DK	J	ERB44-06V1	AC
D1711	95KUBC0078DK	J	ERB44-06V1	AC
D1712	95KUBC0078DK	J	ERB44-06V1	AC
D1713	95KUBC0078DK	J	ERB44-06V1	AC
D1751	95KUBC0187AK	J	ERA91-02V1	AD
D1752	95KUBC0187AK	J	ERA91-02V1	AD
D1753	95KUBC0187AK	J	ERA91-02V1	AD
D1754	95KUBC0187AK	J	ERA91-02V1	AD
D1755	95KUBC0250AK	J	5ELS2-TA2B2	AC
D1756	95KUBC0250AK	J	5ELS2-TA2B2	AC
D1757	95KUBC0250AK	J	5ELS2-TA2B2	AC
D1758	95KUBC0250AK	J	5ELS2-TA2B2	AC
D1759	95KUBC0250AK	J	5ELS2-TA2B2	AC
D1760	95KUBC0250AK	J	5ELS2-TA2B2	AC
D1761	95KUBC0250AK	J	5ELS2-TA2B2	AC
D1762	95KUBC0250AK	J	5ELS2-TA2B2	AC
D1763	95KUBC0250AK	J	5ELS2-TA2B2	AC
D1764	95KUBC0250AK	J	5ELS2-TA2B2	AC
D1765	95KUBC0250AK	J	5ELS2-TA2B2	AC
D1766	95KUBC0250AK	J	5ELS2-TA2B2	AC
ZD1701	95KUBDAK160C	J	Zener Diode, RD16ESAB2-T4	AC
ZD1703	95KUBDAK200C	J	Zener Diode, RD20ESAB2-T4	AB
ZD1717	95KUBC0078DK	J	Zener Diode, ERB44-06V1	AC

RDENC0086CEZZ
BALLAST UNIT (Continued)

Ref. No.	Part No.	★	Description	Code

PACKAGED CIRCUIT

⚠ PC1701	95KUDC0065LB	J	Photo Coupler, TLP634	AK

COILS AND TRANSFORMERS

L1701	95KUKZ0344ZZ	J	Coil, SN5-400	AH
L1703	95K129695021	J	Choke Coil, CHT062	AW
T1701	95K129615018	J	Trans., DTTJ01	AQ
T1702	95K129695013	J	Trans., PTTP60	AW
⚠ T1704	95K129695016	J	Trans., DTTD03	AW
T1705	95K348695012	J	H.V. Trans., E1163-9001	BM

CONTROL

VR1701	95KUFBA472CY	J	4.7k(B) Wattage Adj.	AC
	or			
	95KUFBA502CA	J	5k(B) Wattage Adj.	AC

CAPACITORS

C1709	95KUGCU221BP	J	220p 1kV Ceramic	AC
C1710	95KUGFQ474CU	J	0.47 400V Film	AF
C1712	95KUGZ0805ZZ	J	3300p 500V Ceramic	AB
C1713	95KUGAD101HP	J	100 25V Electrolytic	AD
C1714	95KUGAD101HP	J	100 25V Electrolytic	AD
C1715	95KUGAF221EV	J	220 50V Electrolytic	AD
C1716	95KUGZ0781ZZ	J	2200p 1kV Ceramic	AC
	or			
	95KUGCU222BA	J	2200p 1kV Ceramic	AC
C1717	95KUGAD101HP	J	100 25V Electrolytic	AD
C1718	95KUGZ0842ZZ	J	1 25V Electrolytic	AC
C1719	95KUGZ0841ZZ	J	10 50V Electrolytic	AC
C1720	95KUGZ0840ZZ	J	1 50V Electrolytic	AC
C1721	95KUGFQ474CU	J	0.47 400V Film	AF
C1724	95KUGFQ105GF	J	1 400V Film	AK
C1751	95KUGFQ333DU	J	0.033 400V Film	AC
C1752	95KUGFQ333DU	J	0.033 400V Film	AC
C1753	95KUGFQ333DU	J	0.033 400V Film	AC
C1754	95KUGFQ333DU	J	0.033 400V Film	AC
C1755	95KUGFF222BQ	J	2200p 50V Film	AB
C1756	95KUGZ0799ZZ	J	1 50V Electrolytic	AC
C1757	95KUGCF102BX	J	1000p 50V Ceramic	AA
C1758	95KUGCU221BN	J	220p 1kV Ceramic	AC
	or			
	95KUGCU221AJ	J	220p 1kV Ceramic	AB
C1759	95KUGFF103DT	J	0.01 50V Film	AB
C1760	95KUGCF102BX	J	1000p 50V Ceramic	AA
SK1701	95KUGZ0805ZZ	J	3300p 500V Ceramic	AB

RESISTORS

R1702	95KUEZ0449ZZ	J	820k 1W Metal Film	AB
R1703	95KUEGER10AX	J	0.1 Cement	AD
R1704	95KUEFD683BH	J	68k 1W Metal Film	AB
R1705	95KUEFD151BH	J	150 1W Metal Film	AB
R1706	95KUEFC220AV	J	22 1/2W Metal Film	AB
R1707	95KUEFD330BH	J	33 1W Metal Film	AB
R1709	95KUEEB330BE	J	33 1/4W Carbon	AA
R1711	95KUEEB330BE	J	33 1/4W Carbon	AA
R1712	95KUEEB330BE	J	33 1/4W Carbon	AA
R1714	95KUEFE332AW	J	3.3k 2W Metal Film	AB
R1715	95KUEEB330BE	J	33 1/4W Carbon	AA
R1717	95KUEGGR22AT	J	0.22 5W Cement	AE
R1718	95KUEFD1R8BH	J	1.8 1W Metal Film	AB
R1719	95KUEFD1R8BH	J	1.8 1W Metal Film	AB
R1720	95KUEFE332AW	J	3.3k 2W Metal Film	AB
R1721	95KUEEC4R7BE	J	4.7 1/2W Carbon	AA
R1723	95KUEEC121BE	J	120 1/2W Carbon	AA
R1724	95KUEEB102BE	J	1k 1/4W Carbon	AA
R1725	95KUEEB102BE	J	1k 1/4W Carbon	AA
R1726	95KUEBBR39AM	J	0.39 Fuse Resistor	AC
R1727	95KUEBBR39AM	J	0.39 Fuse Resistor	AC

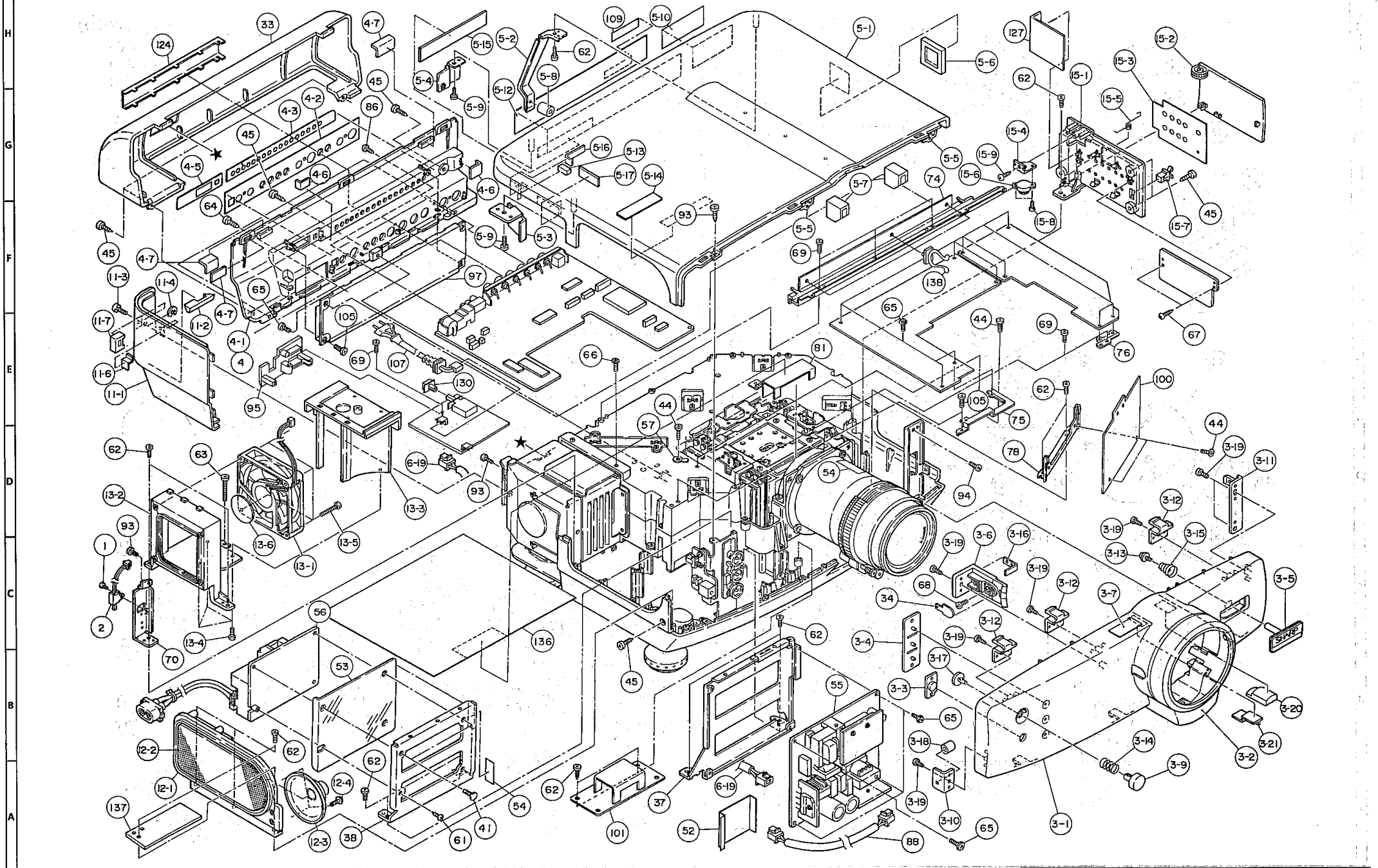
MISCELLANEOUS PARTS

⚠ F1701	95KPJP0027ZZ	J	IC Protector, 1A, 125V	AF
⚠ F1702	95KPJT0139ZZ	J	Fuse, 136°C, 2A, 250V	AD
FB1701	95KBFZ89250Z	J	Ferrite Bead	AB
FB1702	95KBFZ89250Z	J	Ferrite Bead	AB
FB1703	95KBFZ89250Z	J	Ferrite Bead	AB
FB1704	95KBFZ89250Z	J	Ferrite Bead	AB
CN1	95KPKZ0522ZZ	J	Connector 2-pin, (D)	AB
PL1	95KPKZ0194ZZ	J	Connector 2-pin, (PL)	AC

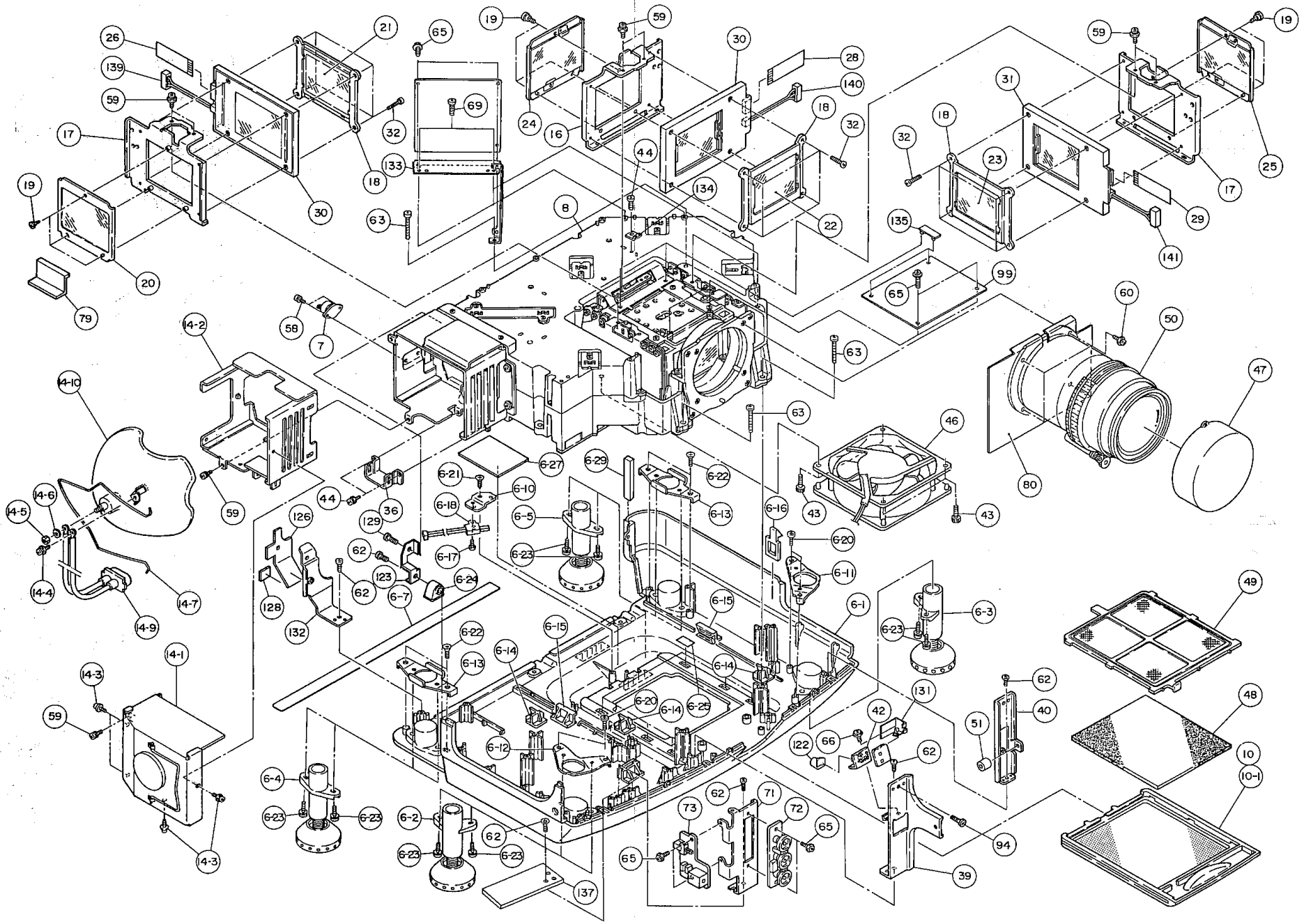
—— End of BALLAST UNIT ——

Memo

CABINET AND MECHANICAL PARTS / GEHÄUSE UND MECHANISCHE BAUTEILE



CABINET AND MECHANICAL PARTS / GEHÄUSE UND MECHANISCHE BAUTEILE



CABINET AND MECHANICAL PARTS

Ref. No.	Part No.	★	Description	Code
1	LX-BZ3264CEFF	J	Screw, Switch	AA
2	QCNW-3462CEZZ	J	Connecting Wire, Switch	AH
3	CBDYF1040CE01	J	Front Body Ass'y	BF
3-1	*Not Available*	–	Front Body	—
3-2	GCOVA1446CESB	J	Lens Cover	AQ
3-3	GCOVA1450CESA	J	Front Cover	AD
3-4	GCOVA1451CESA	J	LED Cover	AD
3-5	HBDGB3099CESA	J	Badge	AM
3-6	HDECQ0571CESB	J	Decoration Holder	AH
3-7	HiNDP4201CESB	J	Indication Plate	AC
3-8	—— *Not Used* ——			
3-9	JBTN-1784CESB	J	Button, Power	AE
3-10	LANGT9978CEFW	J	Angle-A, Front Body	AD
3-11	LANGT9991CEFW	J	Angle-D, Front Body	AE
3-12	LHLDZ1720CEZZ	J	Holder, ×3	AC
3-13	LX-HZ3066CEFF	J	Screw, Badge	AA
3-14	MSPRC0146CEFW	J	Spring	AC
3-15	MSPRC0147CEFW	J	Spring, Badge	AC
3-16	MSPRP0115CEFW	J	Leaf Spring	AC
3-17	PGiDM0021CE00	J	Guide, Button	AB
3-18	PMLT-0157CE00	J	Light Shielding Cover	AB
3-19	XEPSD40P10000	J	Screw, ×7	AA
3-20	LHLDZ1750CEZZ	J	Lib	AD
3-21	LHLDZ1317CEKZ	J	Lib	AC
4	CBDYR1025CE01	J	Rear Body Ass'y	AX
4-1	*Not Available*	–	Rear Body	—
4-2	HiNDP4268CESA	J	Indication Plate, Jack	AF
4-3	HiNDP4269CESA	J	Indication Plate, Rear	AD
4-4	—— *Not Used* ——			
4-5	HiNDP4271CESA	J	Indication Plate-A, Rear	AD
4-6	PCOVU1032CE00	J	Light Shielding Cover, ×2	AD
4-7	PMLT-0149CE00	J	Light Shielding Cover, ×3	AB
5	CBDYT1018CE01	J	Top Body Ass'y	BH
5-1	*Not Available*	–	Top Body	—
5-2	LANGF2114CEFW	J	Angle, Top Body	AF
5-3	LANGF2116CEFW	J	Angle, Top Body-Left	AD
5-4	LANGT9985CEFW	J	Angle, Top Body	AD
5-5	LHLDZ1722CEZZ	J	Boss, ×2	AC
5-6	LHLDZ1745CEZZ	J	Lib, Right Side	AB
5-7	LHLDZ1746CESB	J	Lib, Top Angle, ×2	AB
5-8	PMLT-0157CE00	J	Light Shielding Cover	AB
5-9	XEPSD40P10000	J	Screw, ×2	AA
5-10	HiNDP4316CESA	J	Indication Plate	AG
5-11	—— *Not Used* ——			
5-12	HiNDP4267CESA	J	Model Indication Plate	AG
5-13	LHLDZ1748CESB	J	Lib	AC
5-14	*Not Available*	–	Tape	—
5-15	PMLT-0184CEZZ	J	Light Shielding Cover	AB
5-16	PMLT-0182CEZZ	J	Light Shielding Cover	AB
5-17	PMLT-0185CEZZ	J	Light Shielding Cover	AB
6	CBDYU1013CE03	J	Bottom Body Ass'y	BP
6-1	*Not Available*	–	Bottom Body	—
6-2	GLEGP9083CESA	J	Leg, Left-Front	AM
6-3	GLEGP9084CESA	J	Leg, Right-Front	AM
6-4	GLEGP9085CESA	J	Leg, Left-Rear	AM
6-5	GLEGP9086CESA	J	Leg, Right-Rear	AM
6-6	—— *Not Used* ——			
6-7	HiNDP4183CESB	J	Indication Plate, Bottom	AF
6-8	*Not Available*	–	Punching Plate, Bottom	—
6-9	—— *Not Used* ——			
6-10	LANGQ1310CEFW	J	Angle	AD
6-11	LANGT9980CEFW	J	Leg Angle-A	AF
6-12	LANGT9981CEFW	J	Leg Angle-B	AF
6-13	LANGT9986CEFW	J	Leg Angle-C, ×2	AD
6-14	LHLDZ1710CEZZ	J	PWB Holder, ×3	AC
6-15	LHLDZ1711CEZZ	J	PWB Holder, ×2	AD
6-16	LHLDZ1715CEZZ	J	Nail	AB
6-17	LX-BZ3264CEFF	J	Screw, Switch	AA
6-18	QCNW-3439CEZZ	J	Connecting Wire, (LF)	AH
6-19	QCNW-3461CEZZ	J	Connecting Wire, (PE)	AF
6-20	XEPSD40P10000	J	Screw, ×4	AA
6-21	XESSD30P08000	J	Screw, ×1	AA
6-22	XEESD40P10000	J	Screw, Leg Angle, ×4	AA
6-23	XHPSF40P12J00	J	Screw, Leg, ×8	AA
6-24	LHLDZ1443CESB	J	Boss	AB
6-25	PCOVU1015CE00	J	Cover, ×6	AA
6-26	—— *Not Used* ——			
6-27	PZETV0569CE00	J	Cover	AD
6-28	—— *Not Used* ——			
6-29	PMLT-0183CEZZ	J	Moltprene	AE
7	RBiM-0007CEZZ	J	Bimetal	AN
8	CCHSK0010CE02	J	Optics Mech. Chassis Ass'y	DL
9	—— *Not Used* ——			
10	CCOVA1447CE02	J	Fan Cover Ass'y	AT
10-1	*Not Available*	–	Fan Cover	—
10-2	*Not Available*	–	Punching Plate	—
11	CCOVA1448CE02	J	Lamp Cover Ass'y	AU
11-1	*Not Available*	–	Lamp Cover	—
11-2	LHLDZ1744CESB	J	Holder, Lamp Cover	AC
11-3	LX-TZ3054CESB	J	Screw, Lamp Cover	AD
11-4	XRESJ30-06000	J	E-Ring	AA
11-5	—— *Not Used* ——			
11-6	LHLDZ1747CESB	J	Nail	AC
11-7	LHLDZ1748CESB	J	Lib	AC
12	CCOVA1466CE02	J	Decoration Plate Ass'y	AZ
12-1	*Not Available*	–	Decoration Plate	—

CABINET AND MECHANICAL PARTS (Continued)

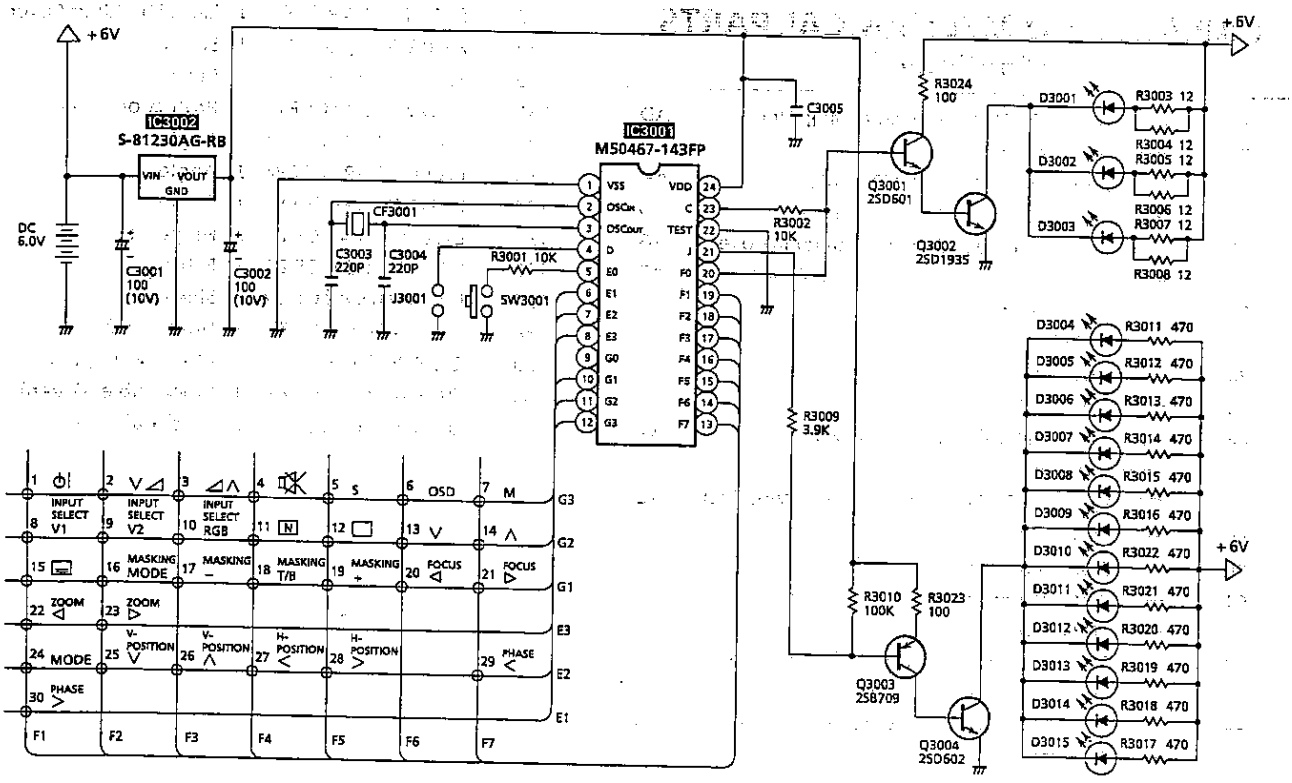
Ref. No.	Part No.	★	Description	Code
12-2	*Not Available*	–	Punching Plate	—
12-3	VSP0080P-G7WA	J	Speaker, 8 cm	AP
12-4	LX-HZ3066CEFF	J	Screw, fixed Speaker ×3	AA
13	CCOVZ1006CE01	J	Duct Ass'y	BA
13-1	NFANR0040CE00	J	Exhaust Fan	AX
13-2	PCOVZ1006CEZZ	J	Duct Base	AG
13-3	PCOVZ1008CEZZ	J	Duct	AM
13-4	XEPSD40P10000	J	Screw, ×3	AA
13-5	XEPSD40P30000	J	Screw, ×4	AA
13-6	PCOVP9061CE00	J	Protection Cover	AB
14	BQC-XG3800E/1	J	Lamp Unit	CH
14-1	LANGQ9133CEFW	J	Lamp Case, Top	AP
14-2	LANGQ9134CEFW	J	Lamp Case, Bottom	AM
14-3	LX-BZ3086CEFD	J	Screw, Lamp Case, ×4	AA
14-4	LX-BZ3270CEFN	J	Screw, Lamp Case	AA
14-5	LX-NZ3108CEFN	J	Nut, Lamp Case	AA
14-6	LX-WZ3102CEFN	J	Washer, Lamp Case	AA
14-7	MSPRB0015CEFW	J	Spring, Lamp Case	AF
14-8	—— *Not Used* ——			
14-9	QPLGN0295CEZZ	J	Plug, Lamp	AR
⚠ 14-10	RLMPF0013CEZZ	J	Lamp	CD
14-11	—— *Not Used* ——			
15	CPNLC1688CE03	J	Panel Ass'y	AW
15-1	*Not Available*	–	Panel	—
15-2	GDORF1952CESA	J	Door	AM
15-3	HINDP4277CESA	J	Indication Plate, Inside the Door	AE
15-4	LANGT9972CEFW	J	Angle, Damper	AD
15-5	MSPRD0077CEFW	J	Spring, Door	AB
15-6	PDMPF1013CEZZ	J	Damper	AG
15-7	PKAi-1085CE00	J	Latch	AD
15-8	XBPSD20P06000	J	Screw, Damper, ×2	AA
15-9	XEPSD30P10000	J	Screw, Damper Angle	AA
16	LANGT2052CE00	J	Angle, LCD Panel Unit-G	AV
17	LANGT9966CE00	J	Angle, ×2, LCD Panel Unit-R, B	AV
18	LHLDZ1714CEZZ	J	Holder, ×3, Output Filter	AE
19	LX-BZ3216CEFF	J	Screw, ×9, Filter	AA
20	PFiLW0065CEZZ	J	Polarizer Filter-Red	BH
21	PFiLW0048CEZZ	J	Polarizer Output Filter (Red)	AY
22	PFiLW0049CEZZ	J	Polarizer Output Filter (Green)	AY
23	PFiLW0050CEZZ	J	Polarizer Output Filter (Blue)	AY
24	PFiLW0066CEZZ	J	Polarizer Filter (Green)	BH
25	PFiLW0067CEZZ	J	Polarizer Filter (Blue)	BH
26	QCNW-3520CEZZ	J	Connecting Wire, LCD Panel Unit (Red)	AL
27	—— *Not Used* ——			
28	QCNW-3571CEZZ	J	Connecting Wire, LCD Panel Unit (Green)	AL
29	QCNW-3572CEZZ	J	Connecting Wire, LCD Panel Unit (Blue)	AL
30	RUNTK0367CEZZ	J	LCD Panel Unit (Red, Green)	DH
31	RUNTK0368CEZZ	J	LCD Panel Unit (Blue)	DH
32	XHPSF30P14WS0	J	Screw, ×12, Holder	AA
33	CCOVA1472CE01	J	Decoration Cover Ass'y	AW
34	HDECQ0580CESA	J	Decoration Plate	AD
35	—— *Not Used* ——			
36	LANGQ2043CEFW	J	Angle, Plug	AE
37	LANGQ9137CEFW	J	Angle, Power Unit	AM
38	LANGQ9138CEFW	J	Angle, Ballast Unit	AH
39	LANGT9977CEFW	J	Angle, Frame-Bottom	AC
40	LANGT9989CEFW	J	Angle, Frame-Bottom	AE
41	LHLDF9007CEZZ	J	AC Plug Holder, ×3	AB
42	LHLDZ1730CEZZ	J	Holder, Photointerruptor	AC
43	LX-BZ3214CEFF	J	Screw, ×4, Fan	AB
44	LX-BZ3220CEFD	J	Screw, ×7	AA
45	LX-TZ3060CESE	J	Screw, ×9	AD
46	NFANR0043CE00	J	Absobed Fan	BB
47	PCAPH1032CEZZ	J	Lens Cap	AG
48	PFiLD0013CEZZ	J	Filter-B	AG
49	PFiLD0017CEZZ	J	Filter-A	AN
50	PLNS-0035CEZZ	J	Lens	CX
51	PMLT-0157CE00	J	Moltprene	AB
52	PZETV0584CEZZ	J	Shield	AK
53	PSLDM9072CEZZ	J	Shield	AH
54	PSPAT0003CEZZ	J	Spacer, ×1	AA
55	*Not Available*	–	Power Unit	—
56	*Not Available*	–	Ballast Unit	—
57	RH-HZ0038CEZZ	J	Thermistor	AQ
58	XBPSD30P04J00	J	Screw, ×2, Bimetal	AA
59	XBPSD40P08JS0	J	Screw, ×8	AA
60	XBPSD40P12JS0	J	Screw, ×4, Lens	AA
61	XEPSD30P10000	J	Screw, ×1	AA
62	XEPSD40P12000	J	Screw, ×20	AA
63	XTBSD40P30000	J	Screw, ×5	AA
64	XEPSF40P12000	J	Screw, AC Out. Holder	AA
65	XHPSD30P06WS0	J	Screw, ×25	AA
66	XHPSD30P08WS0	J	Screw, ×2	AA
67	XEPSD30P08000	J	Screw, ×2	AA
68	XHPSF40P08000	J	Screw, ×1	AA
69	XEPSD30P10000	J	Screw, ×7	AA
70	LANGF2115CEFW	J	Angle, Duct	AE
71	LANGQ9143CEFW	J	Angle, LED Unit	AM
72	*Not Available*	–	LED Unit	—
73	*Not Available*	–	Power Switch Unit	—
74	LANGQ5693CEFW	J	Angle, Main Unit	AH
75	LANGQ5696CEFW	J	Angle, Main Unit	AE

CABINET AND MECHANICAL PARTS (Continued)

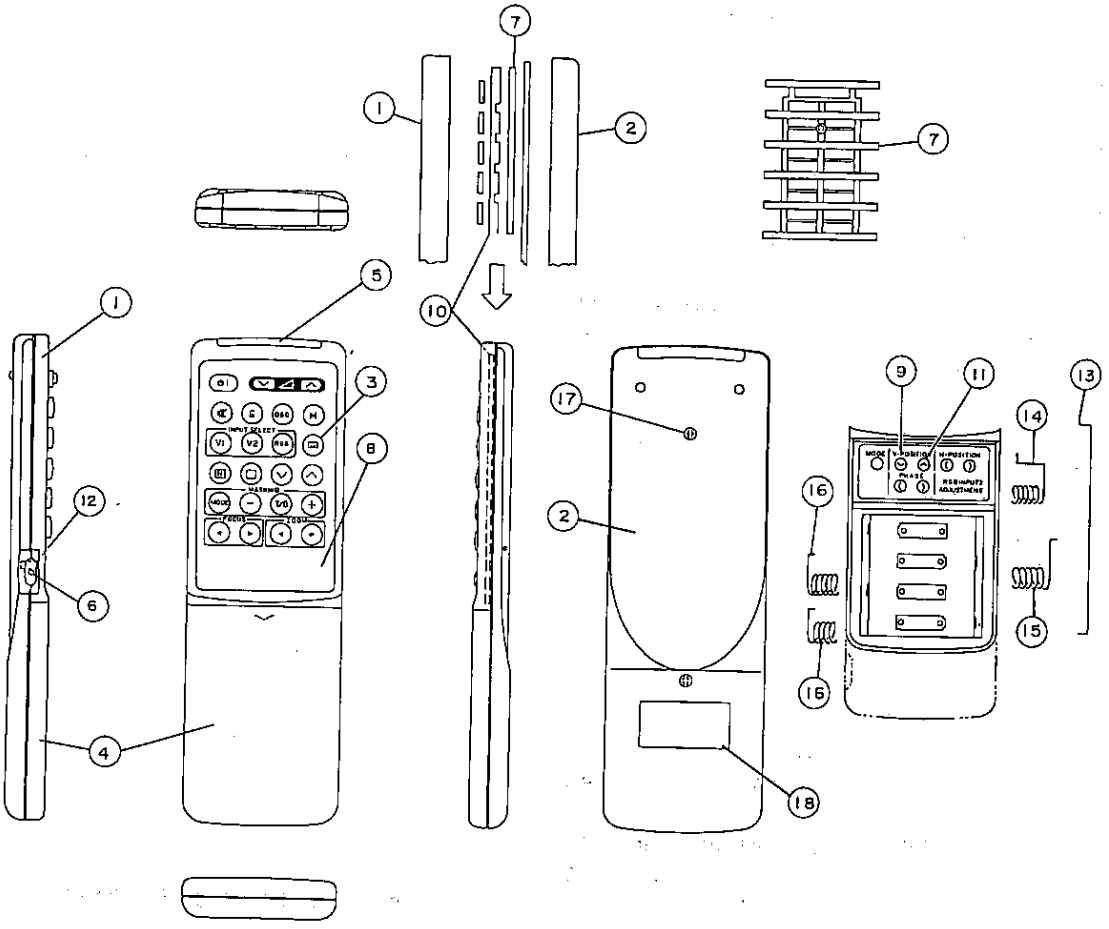
Ref. No.	Part No.	★	Description	Code
76	LANGQ5695CEFW	J	Angle, Main Unit	AD
77	—— *Not Used* ——			
78	LANGQ9139CEFW	J	PWB Angle	AH
79	PCOVQ3008CE00	J	Radiator Cover	AD
80	PCOVU9013CE00	J	Light Shielding Cover	AG
81	PCOVM9008CE00	J	Dust Proof Cover	AF
82	—— *Not Used* ——			
83	—— *Not Used* ——			
84	—— *Not Used* ——			
85	—— *Not Used* ——			
86	XEPSF30P10000	J	Screw, ×3	AA
87	—— *Not Used* ——			
88	QCNW-3657CEZZ	J	Connecting Wire, (PL)	AE
89	—— *Not Used* ——			
90	—— *Not Used* ——			
91	—— *Not Used* ——			
92	—— *Not Used* ——			
93	XTASD40P12000	J	Screw, Top Body, ×3	AA
94	LX-TZ3011CEFD	J	Screw, ×2	AA
95	LHLDZ1751CESA	J	Holder, AC Outlet	AE
96	—— *Not Used* ——			
97	—— *Not Used* ——			
98	—— *Not Used* ——			
99	*Not Available*	–	LCD Control Unit	—
100	*Not Available*	–	Converter Unit	—
101	*Not Available*	–	Sound Amp. Unit	—
102	—— *Not Used* ——			
103	—— *Not Used* ——			
104	—— *Not Used* ——			
105	XEPSD40P10000	J	Screw, ×3	AA
106	—— *Not Used* ——			
⚠ 107	QACCV2009CESA	J	AC Cord	AN
108	—— *Not Used* ——			
109	HiNDP4290CEZZ	J	Serial Number Label	AC
110	—— *Not Used* ——			
111	—— *Not Used* ——			
112	—— *Not Used* ——			
113	—— *Not Used* ——			
114	—— *Not Used* ——			
115	—— *Not Used* ——			
116	—— *Not Used* ——			
117	—— *Not Used* ——			
118	—— *Not Used* ——			
119	—— *Not Used* ——			
120	—— *Not Used* ——			
121	—— *Not Used* ——			
122	LHLDZ1731CEZZ	J	Holder	AC
123	LANGF2117CEFW	J	Angle	AE
124	GDORR1002CESB	J	Rear Door	AK
125	—— *Not Used* ——			
126	PCOVU9018CE00	J	Light Shielding Cover	AE
127	PSPAV0133CE00	J	Light Shielding Cover	AC
128	PMLT-0149CE00	J	Light Shielding Cover	AB
129	XBPSD30P06JS0	J	Screw	AA
130	JKNBP1065CESB	J	Button	AC
131	PCOVP3037CEFW	J	Protection Cover	AC
132	LANGQ1309CEFW	J	Angle	AF
133	LANGQ5697CEFW	J	Angle	AF
134	LANGQ5694CEFW	J	Angle	AD
135	LHLDF1141CEZZ	J	Hinge, ×2	AB
136	PFILD0026CEZZ	J	Filter	AN
137	PZETV0583CEZZ	J	Shield, ×2	AB
138	LHLDW1019CEZZ	J	Holder, ×3	AA
139	QCNW-3569CEZZ	J	Clock Cable (Red)	AL
140	QCNW-3651CEZZ	J	Clock Cable (Green)	AH
141	QCNW-3652CEZZ	J	Clock Cable (Blue)	AH

— End of CABINET AND MECHANICAL PARTS —

SCHEMATIC DIAGRAM: RRMCG0992CESA



CABINET PARTS LOCATION



RRMCG0992CESA
INFRARED REMOTE CONTROL UNIT

INTEGRATED CIRCUITS

Ref. No.	Part No.	★	Description	Code
IC3001	RH-iX0099LAZZ	J	M50467-143FP	AM
IC3002	VHiS-81230AG1	J	S-81230AG-RB	AL

TRANSISTORS

Ref. No.	Part No.	★	Description	Code
Q3001	VS2SD601AZR-1	J	2SD601	AA
Q3002	VS2SD1935-6-1	J	2SD1935	AB
Q3003	VS2SB709ABR-1	J	2SB709	AA
Q3004	VS2SD602R//-1	J	2SD602	AB

DIODES

Ref. No.	Part No.	★	Description	Code
D3001	RH-PX0128PAZZ	J	LED, SE313, Infrared	AE
D3002	RH-PX0128PAZZ	J	LED, SE313, Infrared	AE
D3003	RH-PX0128PAZZ	J	LED, SE313	AE
D3004	RH-PX0203PAZZ	J	LED, Light-up	AB
D3005	RH-PX0203PAZZ	J	LED, Light-up	AB
D3006	RH-PX0203PAZZ	J	LED, Light-up	AB
D3007	RH-PX0203PAZZ	J	LED, Light-up	AB
D3008	RH-PX0203PAZZ	J	LED, Light-up	AB
D3009	RH-PX0203PAZZ	J	LED, Light-up	AB
D3010	RH-PX0203PAZZ	J	LED, Light-up	AB
D3011	RH-PX0203PAZZ	J	LED, Light-up	AB
D3012	RH-PX0203PAZZ	J	LED, Light-up	AB
D3013	RH-PX0203PAZZ	J	LED, Light-up	AB
D3014	RH-PX0203PAZZ	J	LED, Light-up	AB
D3015	RH-PX0203PAZZ	J	LED, Light-up	AB

CERAMIC FILTER

Ref. No.	Part No.	★	Description	Code
CF3001	RFiLA0003CEZZ	J	Ceramic Osc., KBR455	AE

CAPACITORS

Ref. No.	Part No.	★				Code
C3001	VCEAGU1AW107M	J	100	10V	Electrolytic	AB
C3002	VCEAGU1AW107M	J	100	10V	Electrolytic	AB
C3003	VCCCTV1H3221J	J	220p	50V	Ceramic	AA
C3004	VCCCTV1H3221J	J	220p	50V	Ceramic	AA
C3005	VCKYTV1EF104Z	J	0.1	25V	Ceramic	AB

RESISTORS

Ref. No.	Part No.	★				Code
R3001	VRS-TV2AD103J	J	10k	1/10W	Metal Oxide	AA
R3002	VRS-TV2AD103J	J	10k	1/10W	Metal Oxide	AA
R3003	VRS-TQ2BD120J	J	12	1/8W	Metal Oxide	AA
R3004	VRS-TQ2BD120J	J	12	1/8W	Metal Oxide	AA

RESISTORS

Ref. No.	Part No.	★				Code
R3005	VRS-TQ2BD120J	J	12	1/8W	Metal Oxide	AA
R3006	VRS-TQ2BD120J	J	12	1/8W	Metal Oxide	AA
R3007	VRS-TQ2BD120J	J	12	1/8W	Metal Oxide	AA
R3008	VRS-TQ2BD120J	J	12	1/8W	Metal Oxide	AA
R3009	VRS-TV2AD392J	J	3.9k	1/10W	Metal Oxide	AA
R3010	VRS-TV2AD104J	J	100k	1/10W	Metal Oxide	AA
R3011	VRS-TV2AD471J	J	470	1/10W	Metal Oxide	AA
R3012	VRS-TV2AD471J	J	470	1/10W	Metal Oxide	AA
R3013	VRS-TV2AD471J	J	470	1/10W	Metal Oxide	AA
R3014	VRS-TV2AD471J	J	470	1/10W	Metal Oxide	AA
R3015	VRS-TV2AD471J	J	470	1/10W	Metal Oxide	AA
R3016	VRS-TV2AD471J	J	470	1/10W	Metal Oxide	AA
R3017	VRS-TV2AD471J	J	470	1/10W	Metal Oxide	AA
R3018	VRS-TV2AD471J	J	470	1/10W	Metal Oxide	AA
R3019	VRS-TV2AD471J	J	470	1/10W	Metal Oxide	AA
R3020	VRS-TV2AD471J	J	470	1/10W	Metal Oxide	AA
R3021	VRS-TV2AD471J	J	470	1/10W	Metal Oxide	AA
R3022	VRS-TV2AD471J	J	470	1/10W	Metal Oxide	AA
R3023	VRS-TV2AD101J	J	100	1/10W	Metal Oxide	AA
R3024	VRS-TV2AD101J	J	100	1/10W	Metal Oxide	AA

SWITCH

Ref. No.	Part No.	★	Description	Code
SW3001	QSW-P0086PAZZ	J	Light-Up	AD

CABINET PARTS

Ref. No.	Part No.	★	Description	Code
1	GCABA0316AASC	J	Cabinet-(A), Top	AM
2	GCABB0267AASC	J	Cabinet-(B), Bottom	AM
3	DBTN-0002LASA	J	Block Button	AQ
4	GCOVH0128PASC	J	Battery Cover	AG
5	PFiLW0156PASA	J	Infrared Filter	AD
6	JBTN-0882PASA	J	Button, Light-up	AE
7	LPLTP0022PASA	J	Diffuser	AF
8	HPNLH0047LASA	J	Indication Plate-A	AG
9	HPNLH0048LASA	J	Indication Plate-B	AD
10	MSPRP0846PASA	J	Rubber Key-A	AM
11	MSPRP0046LASA	J	Rubber Key-B, in Door	AG
12	PSPAZ0113PAZZ	J	Cusion	AB
13	QTANZ0312PAZZ	J	Batt. Terminal ⊕	AB
14	QTANZ0313PAZZ	J	Batt. Terminal ⊖	AC
15	QTANZ0314PAZZ	J	Batt. Terminal ⊕⊖	AB
16	QTANZ0315PAZZ	J	Batt. Terminal ⊕⊖, ×2used	AB
17	XYBSC20P08000	J	Screw, Ø2×8S, ×2used	AA
18	*Not Available*	–	Model Label	—

— End of INFRARED REMOTE CONTROL UNIT —

Ref. No.	Part No.	★	Description	Code

SUPPLIED ACCESSORIES

ACCESSORIES

	PFILD0021CEZZ	J	Air Filter	AR
	QCNW-3645CEZZ	J	VGA Cable	BC
	QCNW-3554CEZZ	J	IBM Cable	BG
	QCNW-3555CEZZ	J	MAC Cable	BG
	RRMCG0992CESA	J	Infrared Remote Control Unit	BP

ACCESSORIES (*NOT REPLACEMENT ITEM*)

	HINDP4273CESA	–	Reverse Indicator, Jack	—
	HINDP4274CESA	–	Reverse Indicator, Back S	—
	HINDP4275CESA	–	Reverse Indicator, Back R	—
	HINDP4272CESA	–	Reverse Indicator, Door	—
	HINDP4278CESA	–	Reverse Indicator	—
	SSAKA0170CEZZ	–	Polystyrene Bag	—
	TINS-5214CEZZ	–	Operation Manual	—
	UBATU0025GEZZ	–	Dry Batteries (4 pcs)	—

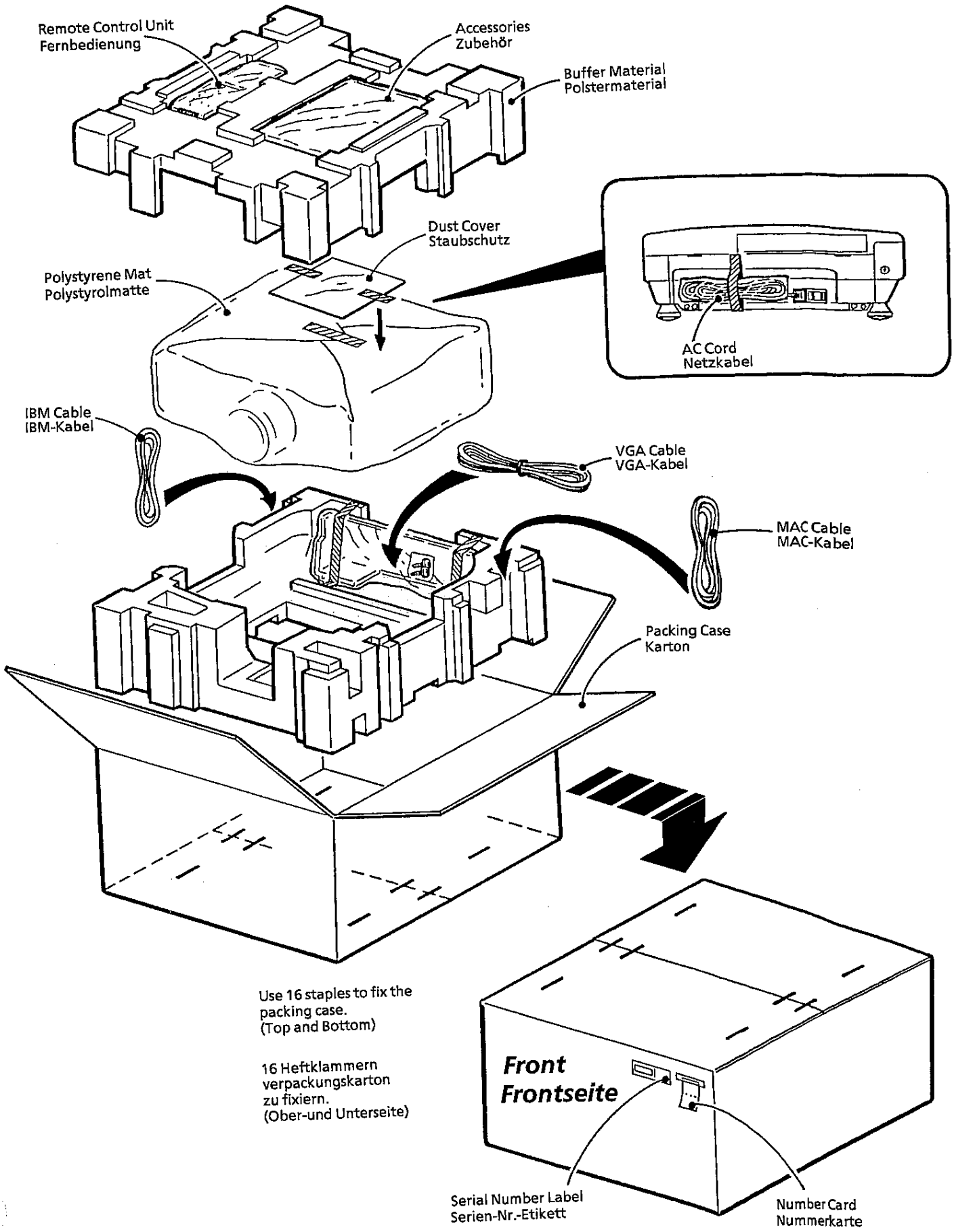
—— End of SUPPLIED ACCESSORIES ——

PACKING PARTS (*NOT REPLACEMENT ITEM*)

	SPAKC4569CEZZ	–	Packing Case	—
	SPAKP0692CEZZ	–	Polystyrene Mat	—
	SPAKX2430CEZZ	–	Buffer Material	—
	TLABK0001TAZZ	–	Number Card	—
	TLABN0157CEZZ	–	Serial Number Label	—

—— End of PACKING PARTS ——

PACKING OF THE SET / VERPACKEN DES GERÄTS



XG-3800E

SHARP

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